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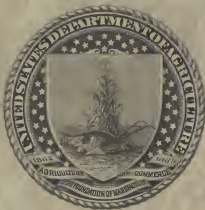
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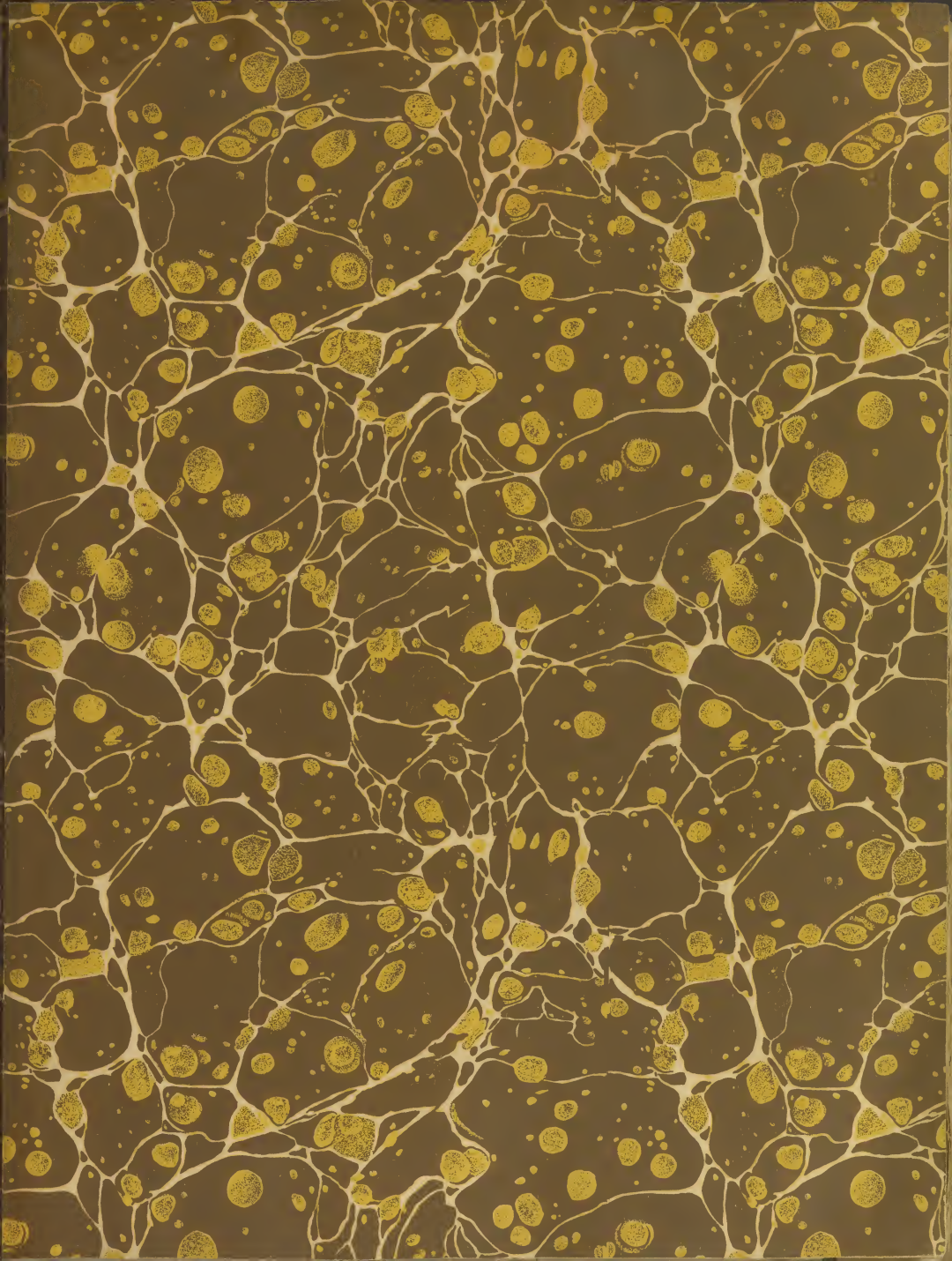


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Tawneya Glover.

Sept. 1892.

Washington D.C. Sept. 21. 1892. begun  
Nov. 2. finished

liquid for preserving larvae. Am Ent & Bot 2 374

40

Examined. Fresh Ent 182

Am Ent. & Am Ent & Bot 192 v

List of desiderata

"	"	"	Animal p 40. end.	
"	"	"	Sphingidae, Aegeridae & p 2	"
"	"	"	Bombycidae p	"
"	"	"	" Com? p 32	"
"	"	"	Noctuidae p 121	"
"	"	"	Deltoidea to	
"	"	"	Geom. immo. amplia	
"	"	"	Boarmi Geom. Aclia	p. 122
"	"	"	Fidon Laurent. Eubolidae	"

Butterflies " in the canton of Basle not less than 12,000,000 butterflies have been caught this year & the government has paid the catchers the not inconsiderable sum of 1,000,000 fr. Naturalists tell us that of every hundred of these beautiful insects forty five are female and as the latter is estimated to lay on the average forty fruitful eggs the destruction of these 12,000,000 is virtually the same as the annihilation of 216,000,000 Caterpillars. Daily News

Newman Entomologist v2 p 56

(False. Hely concl.)

wind. Apr. 20. 1870

p. 41. " " "

p. 60. & 82 " " "

Hand picking note in Kollar "a most satisfactory proof of the superior advantage arising from hand labor in the destruction of insects has lately been given by M. P. Rodiere who was charged by a commission of the Academie des Sciences to investigate the habits of a small moth whose larva is found to be exceedingly injurious in vineyards in France. During the month of August women & children were employed during 4 days in collecting the patches of eggs upon the leaves during which period 186,900 patches were collected which was equal to the destruction of 11,214,000. eggs. In twelve days from twenty to 30 workers destroyed 40,132,000. eggs which would have been hatched in the course of 12 to 15 days.

Tom. almost





The accompanying table will show at a glance what larva, etc., have been already received and what I am anxious to obtain for description and illustration in my work on New England Butterflies. With sincerest thanks to the many friends who have so generously aided me in my undertaking, I beg them to notice that my list of desiderata is still very great, including some of the commonest species; the chances of supplying them are so rapidly diminishing that at the risk of seeming importunate I must most earnestly solicit further assistance.

[The asterisks indicate those stages which I do not require; the blanks desiderata.]

	Egg.	Larva.	Pupa.		Egg.	Larva.	Pupa.		Egg.	Larva.	Pupa.
Asterias	*	*	*	Arthemis				marginatus			
Troilus	*	*	*	Idalia				Juvenalis	*		
Turnus	*	*	*	Cybele				Persius			
Philenor				Atalanta				Brizo	*		
oleracea	*	*	*	Aphrodite				Catallus			
rapae	*	*	*	Myrina	*	*		Tityrus		*	*
Protodice		*	*	Montinus				Lycidas			
Eurytheme				Bellona	*	*		Bathyllus	*		
Philodice	*	*		Claudia				Metacomet			
Lisa				Nycteis		*	*	verna			
Delia				Harrisii				Massasoit			
Gemina				Tharos		*		Hobomok		*	*
americanus		*		Marcia	*			Quadaquina	*		
Thea	*			Batesii				Pocahontas	*	*	*
Epicanthe	*			Phneton	*	*	*	Leonardus			
Poeseima				Cardui				Mystic	*		
violacea				Huntera		*	*	Sisacrus	*		
neglecta				Atalanta	*	*	*	Wingana	*		
Lucia	*			Conia				Wamsutta	*		
Scudderii				Antiopa	*	*	*	Egeronot	*		
Panolina				Milbertii				Acronotus	*		
Comyntas				J-album				Manataqua	*		
Clothilde				umbrosa				Asheton			
acadica		*	*	interrogationis	*	*	*	Onoko	*		
Falacer		*	*	C-argenteum	*	*	*	Samoset			
strigosa		*	*	gracilis		*	*	vialis		*	
humuli				comma		*	*	Metes	*		
auburniana				Funus				Manoco	*		
Nippon	*			semidea		*	*	Hiamma	*		
Mopis				Alope				Panquin	*		
Augustus				Nephele				Masa-pano	*		
Henrici	*			Portlandia				Delaware			
Eriippus		*	*	Boisduvallii	*			Logan			
Misippus		*	*	Eurytris							
Ursula		*	*	Bachmanii							

I am very desirous of seeing collections of Insects from every part of New England, New York, New Jersey and the Dominion of Canada, and repeat the promise, made in the spring, of naming any collection of butterflies from these districts sent by express to the address below, early in October. I beg those who can do so to send not one specimen only of a species but as many as possible, especially among the Hesperidae and the genera *Lycaena*, *Thecla*, *Limenitis*, *Agathis*, *Melitaea* and *Grapta*, where some species have for a long time been confounded. The insects should be numbered—at least with one number for a species—and where any specimen is sent, not obtained from the immediate vicinity of the sender, it should invariably be labelled with the locality where it was taken. If the collection is accompanied by the dates of capture of the different specimens, or a general table of the exact times of appearance and disappearance of the butterflies in the region where they were captured, the collection would have a double value. Specimens of the parasites of butterflies are also desired when it is known what species they attack,—or the chrysalids from which the parasites have been bred can be sent; these also will be named and can probably be returned with the others.

Specimens in all cases should be pinned *strongly* in small, light boxes, lined on the bottom with cork, pith, or soft wood; these boxes should then be wrapped in paper and packed in a larger box with an abundance of dry stuffing, such as crumpled paper, shavings, or coarse straw,—not too tightly crowded, but so arranged as to leave from one and a half to two inches of stuffing around the whole interior of the outer box. If these directions are regarded little danger need be feared.

Collections sent to me by the first or middle of October next will be returned by the first or middle of the following January; for the safety, however, of my own collection, and of others entrusted to me, it will be necessary to return at once and unnamed, any collection showing traces of having been attacked by Museum pests.

SAMUEL H. SCUDDER,

Boston Society of Natural History,  
Berkeley Street, Boston, Mass.

Boston, August 10, 1869.

The following works have all been examined & references &c entered  
Walsh. 1<sup>st</sup> & 2<sup>d</sup> Report Entomology. ~~Mass~~ Illin

Riley 1. 2<sup>d</sup>. & 3<sup>d</sup>. " "

Launders. &c in Report Fruit growers and Ontario Can. 1870

Packard. 1<sup>st</sup> Report Mass.

vol 14 2 American Entomologist Walsh & Riley

Practical Entomology Walsh & Riley.

Entomological correspondence. Harris

Canadian Entomologist

1<sup>st</sup>. Alphabetical list of Lepidopt. the synonyms being  
in italics thus           

2<sup>d</sup>. Arrangement of Families &c &c.

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Those marked with a star \* from Morris cat.  
Those underlined  
Synonyms

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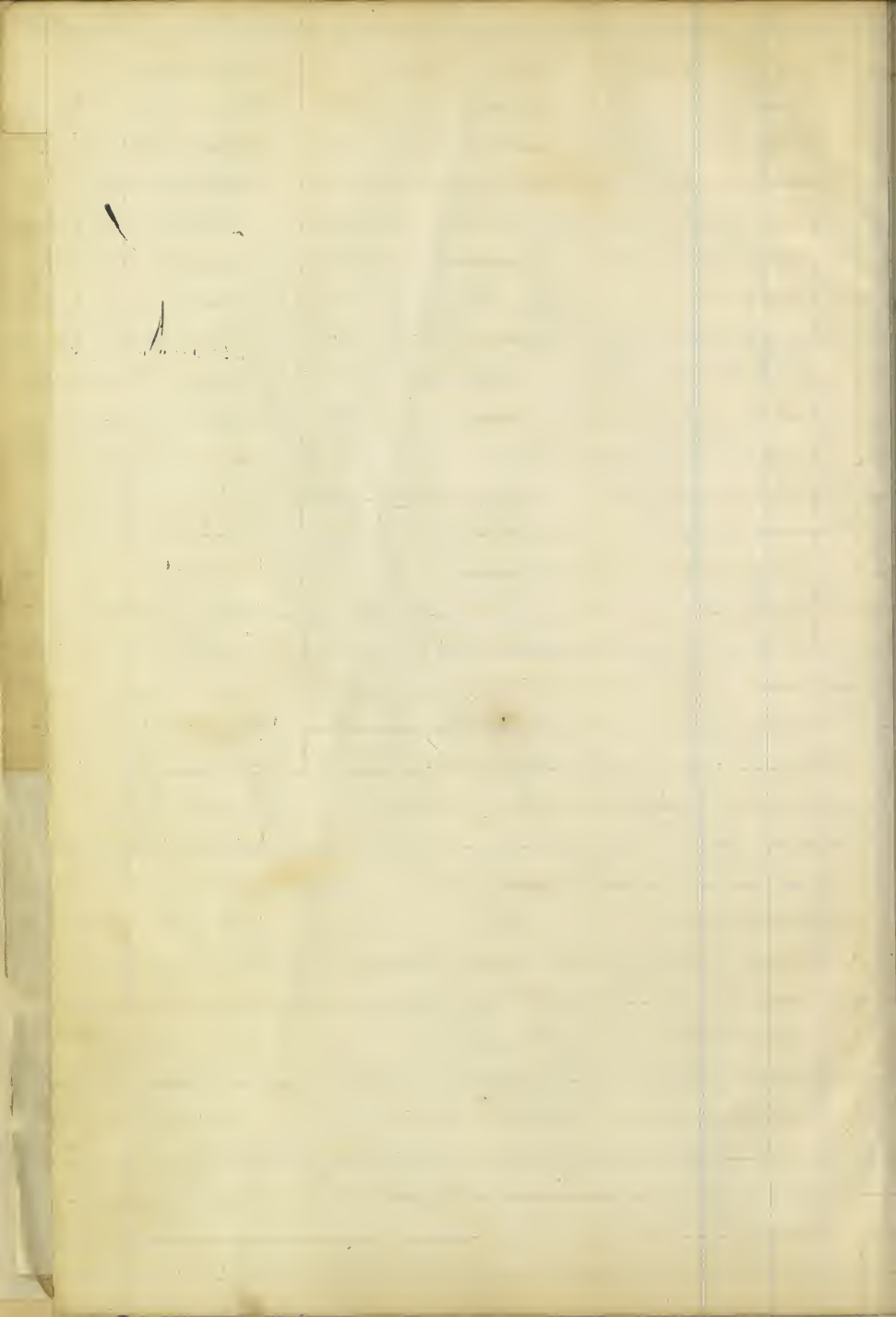
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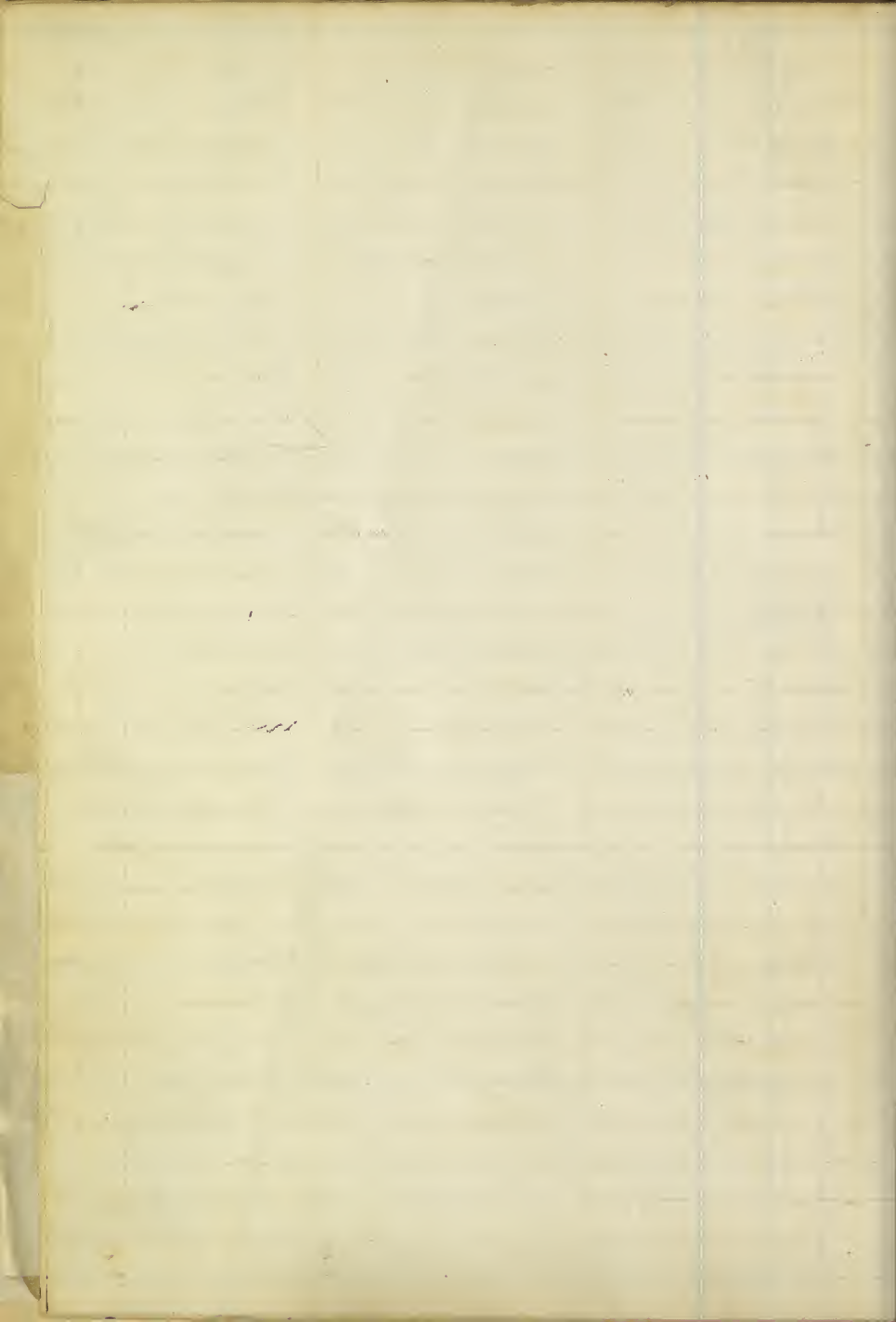
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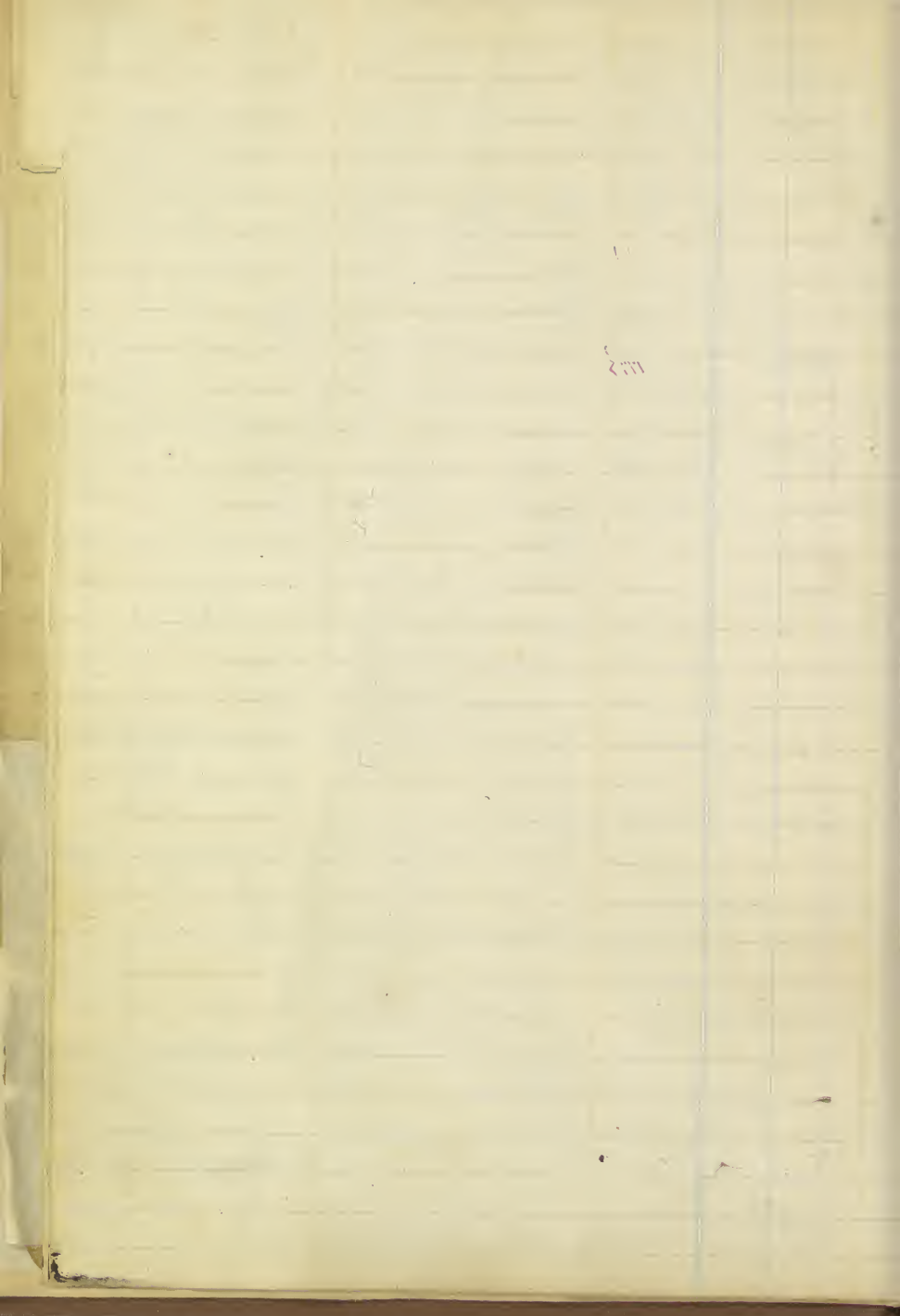
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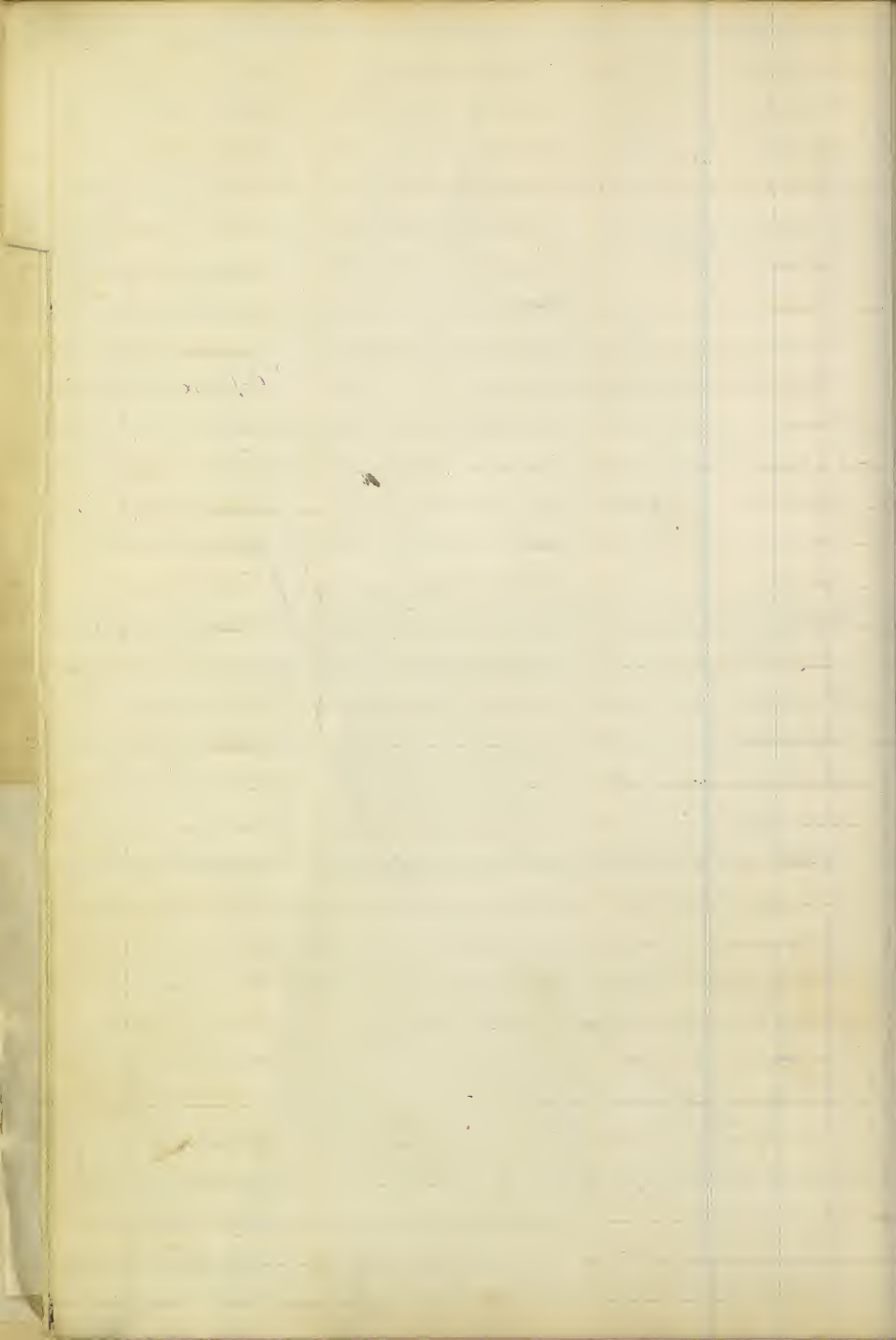
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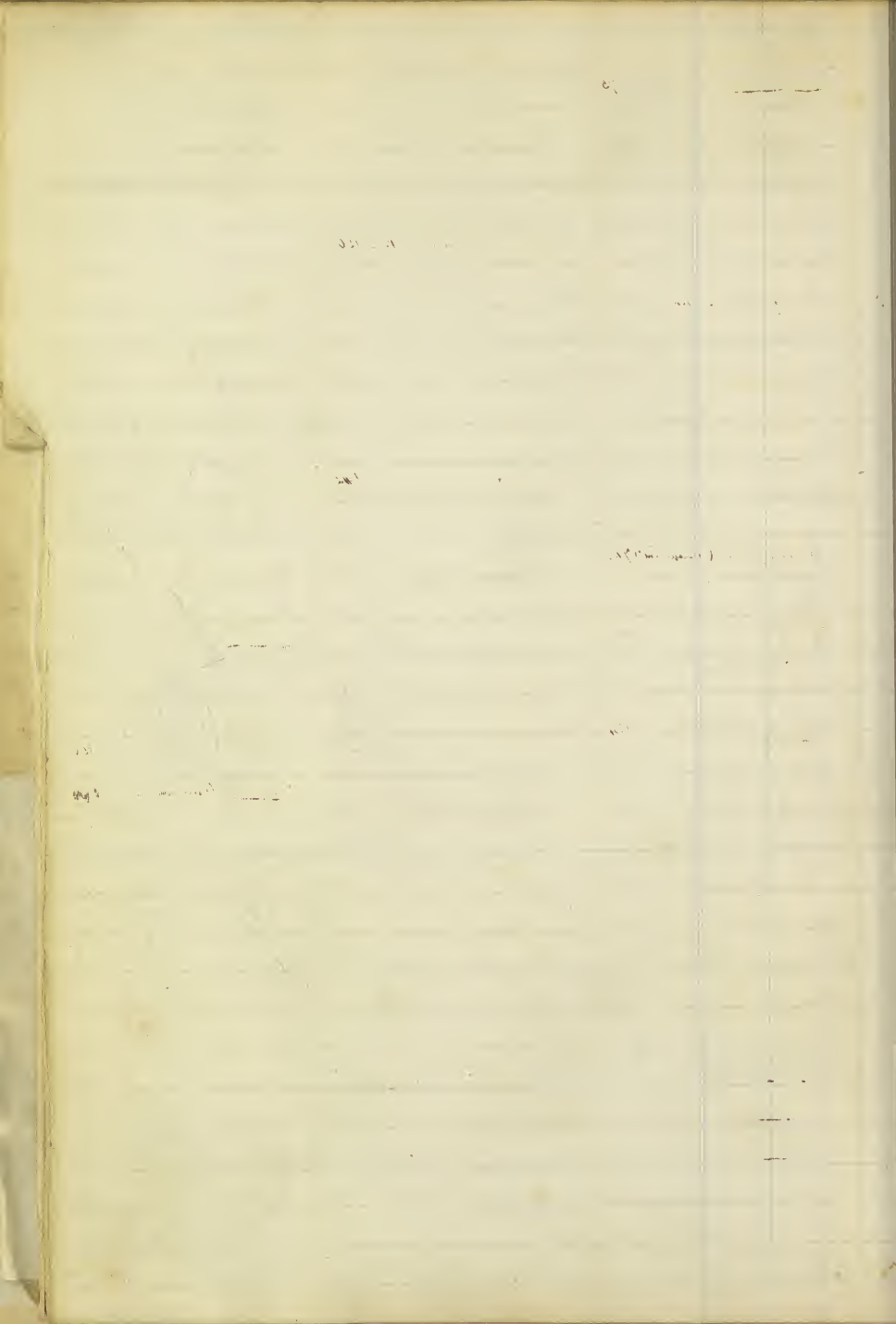
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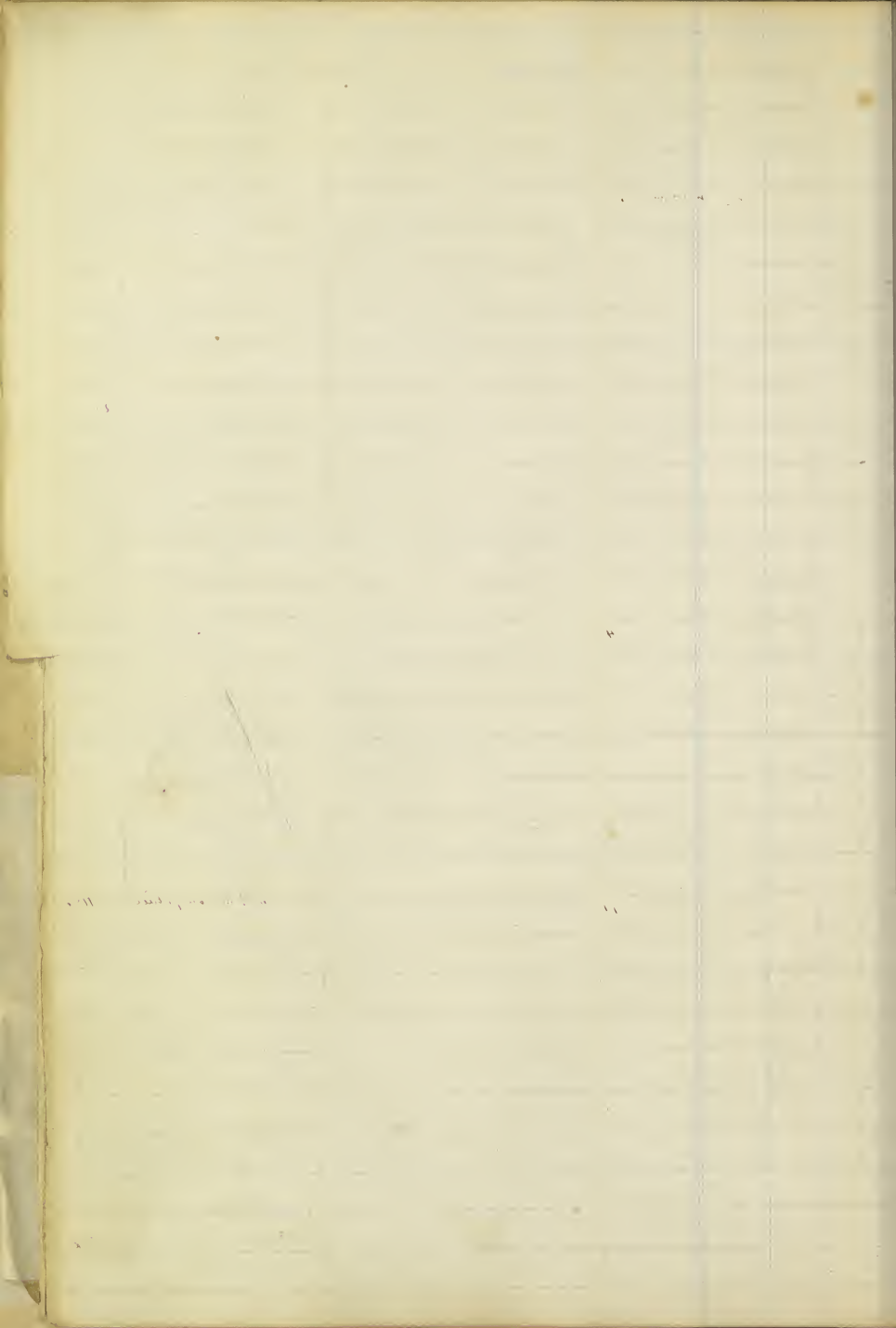
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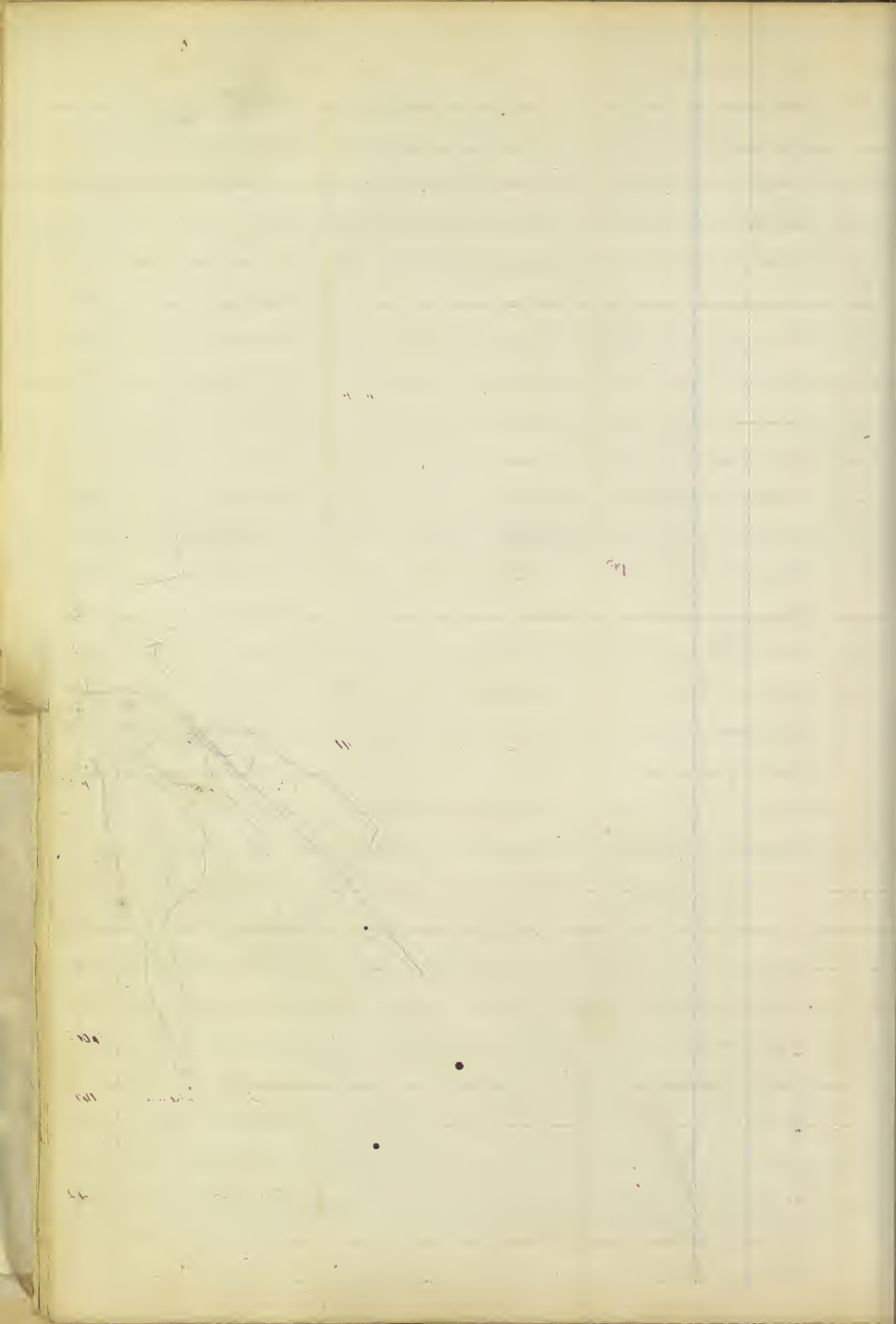


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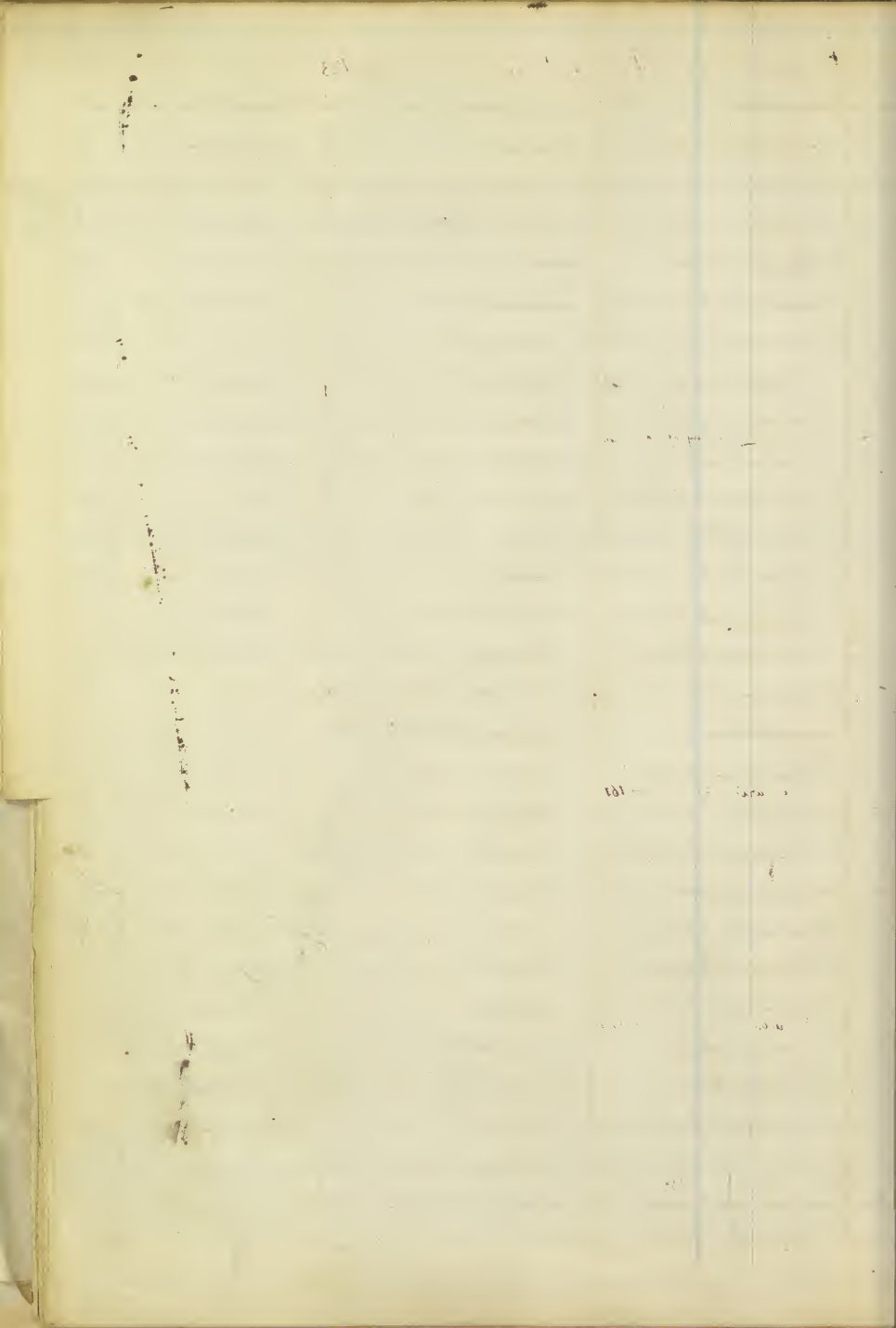
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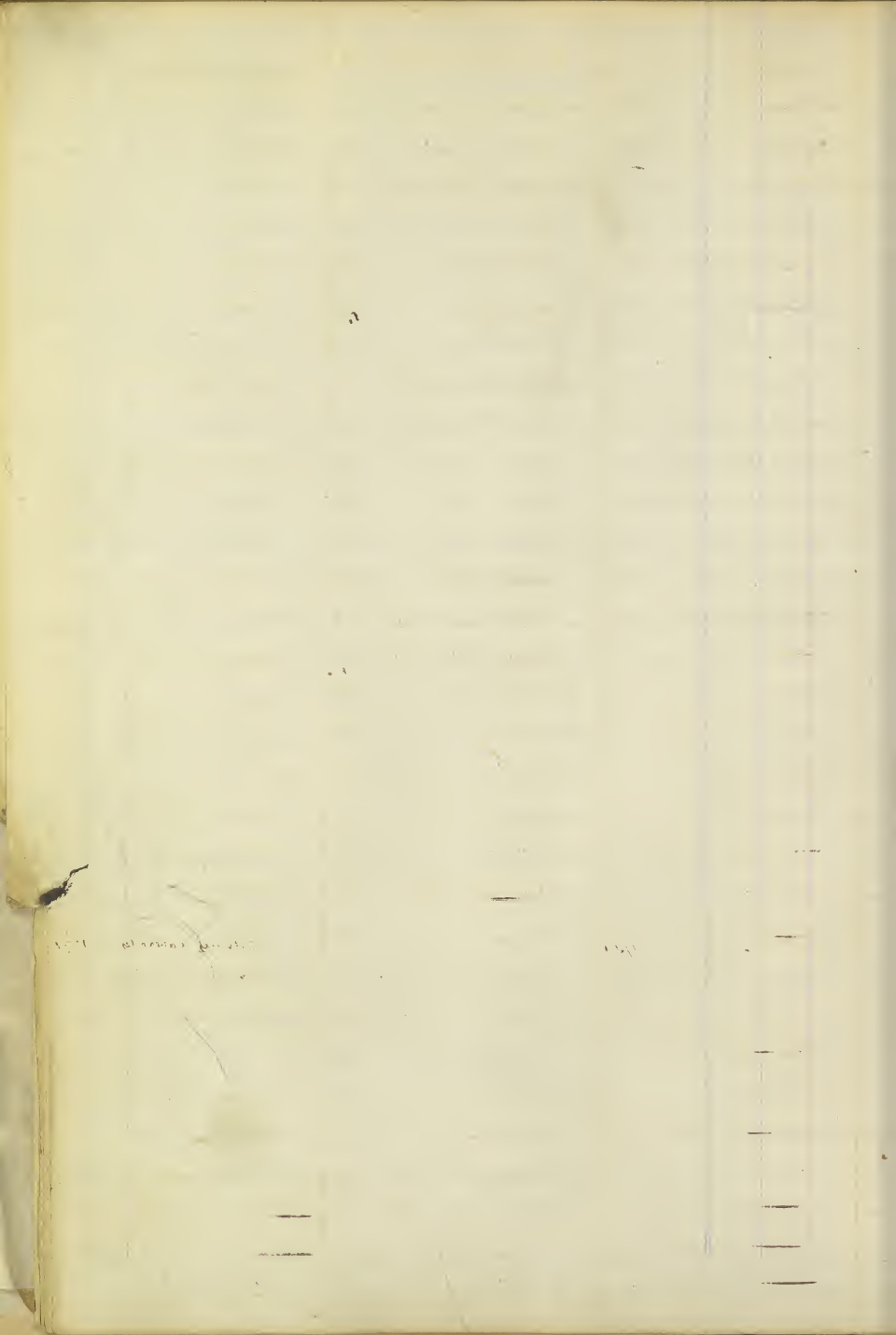
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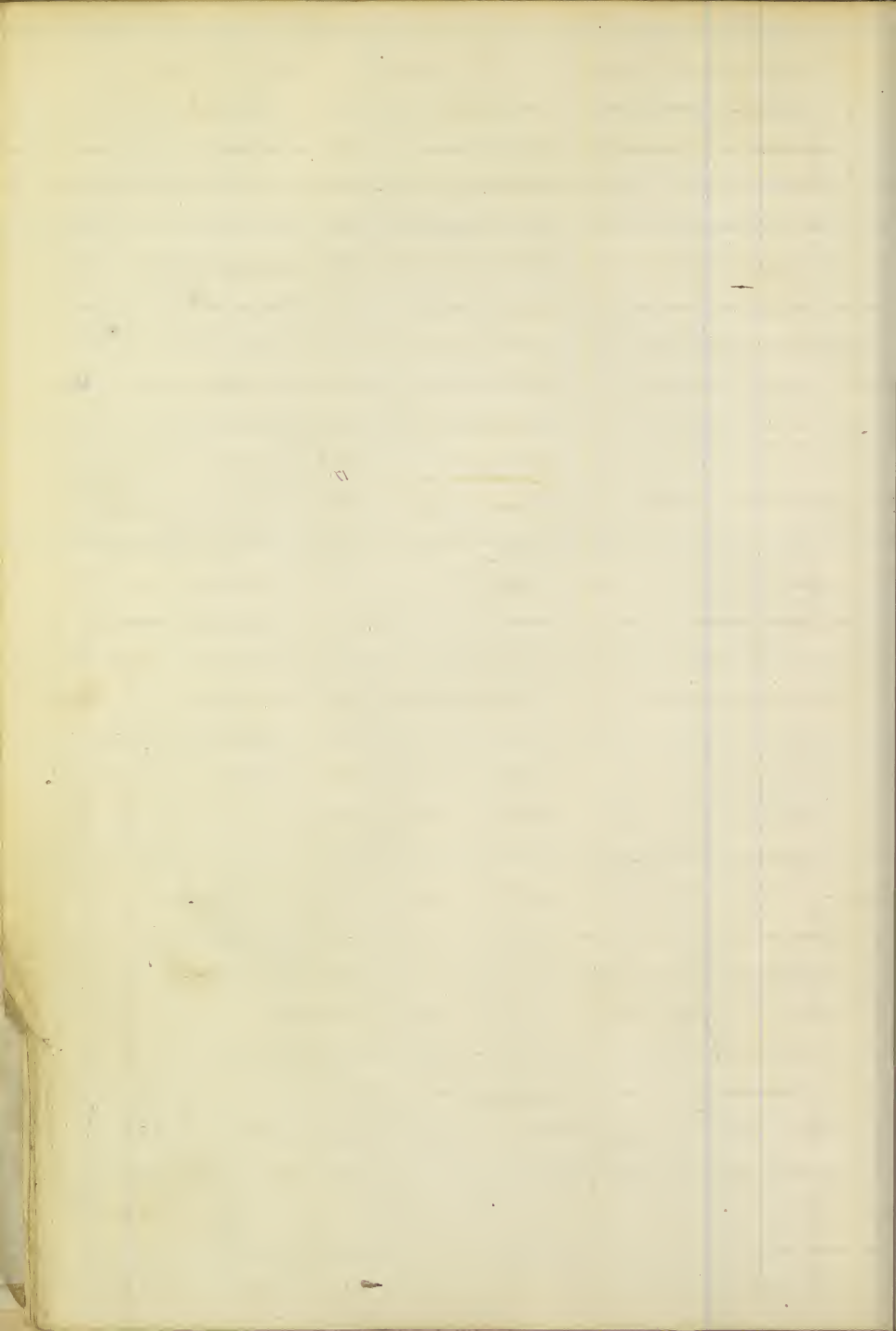
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## Arranged from

## Catalogue of North American Butterflies by J. Wm. H. Edwards.

\*

Proceedings of Entomological Society Philadelphia Vol 2 p. 148.

with additions from Edwards's Syn.

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Arranged from.

List of Canadian Lepidoptera by Mr W. M. Saunders London Ontario Co Canada.

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Champtia Olagostoma

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Pack.

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✓ Cor  
 ✓ Orth  
 ✓ Neur  
 ✓ Rot  
 ✓ Rot  
 ✓ L  
 ✓ Dep  
 ✓ b

✓ Sep. Lepidoptera

✓ Col. Lepidoptera  
 ✓ Spl  
 ✓ Hoc  
 ✓ In. Lepidoptera

# Lepidoptera ( Butterflies Sphingidae Moths &c. of the United States & Canada.

The Butterflies (Rhopalocera) are arranged from the Catalogue of North American Butterflies by J. Wm. Heidmeyer in the Proceedings of the Entomological Society Philadelphia Vol. 2 page 143.  
The Sphingidae Bombycidae are arranged from the list of Lepidoptera by Aug. R. Grote & C. T. Robinson published by the American Entomological Society, Philadelphia Sept. 1868.

The Noctuidae &c. are arranged from List No. 2. of Canadian Lepidoptera printed for the Entomological Socy of Canada presented by Mr Wm Saunders of London Ontario Co Canada (as far as Tortricidae.)

The Tortricidae Yponomeutidae &c. are not yet properly arranged or classified, as no reliable list has yet been published in the united States. The vegetable or animal substances upon which the caterpillar feeds is given whenever it is known, but if doubtful is distinguished by a note of interrogation after it (?) but when it has been found by myself feeding upon the plant it is distinguished by being italicized thus oak? doubtful or cate jarvis feeding upon.

Abbreviations used. L. Larva. P. pupa. Coc. cocoon. I. Imago or perfect insect

Mess. Messieurs { To Trans of E. egg. X. injurious XX very injurious

1/2 R. L. C. B. M. { Catalogue of British Museum & Walker. corrections by Mrs. Grote Robinson  
in Transactions of Entomological Socy Phil. Vol 2d page 67. to 88  
P. E. S. P. or Phil. Soc. Phil. Proceedings of Entomological Socy Philadelphia

T. A. E. S. or Tr. Am. Ent. Soc. Transactions of Entomological Socy Philadelphia

Can. Ent. Canadian Entomologist edited by Rev. C. T. Bellhouse Toronto Can.

C. E. S. Canadian Entomological Socy Galt Theodore

C. N. Canadian Naturalist. by Gosse  
C. T. B. in Can. Entomologist. Rev. C. T. Bellhouse Editor Can. Ent.

B. L. L. Bossi-Laval & Leconte.

S. & A. Smith & Abbott.

St. Stocker OS. or Geo. Sacken

Corn. Cornell University  
Thom. Thomas  
Carbon. Carbon

Trans. Proceedings Acad. Nat. Science } over.  
from N. Y. & Am.

Am. Ent. American Entomologist edited by Chas. V. Riley State Entomologist Missouri  
published by R. P. Stoddard 221 Main St. St. Louis.

F. D. Ag. Patent office Agricultural reports  
R. Dep. Ag. Report of Department of Agriculture



✓ *Femurs of North America by Mr. Sturtevant, notice of  
Am Nat. Vol. 478.*



- Clem. Clemens {Synopsis Nom<sup>a</sup> & Proceedings Academy natural sciences Phil  
 Sphingidae  
 ✓ F. Fish. Fish. N. Y. State Soc. as the same insect is mentioned several times in the same reports at different  
 ✓ Hurr. Harris. Insects injurious to vegetation, Boston edited by C. L. Flint. 1862. pages on the different shrubs or trees, only the principal quotations will be shown
- ✓ Pack Packard.
- Mid Meilemeyer. catalogue of north American Butterflies TESP. 2 p. 143. & 513.  
 Gr or G & R. Grote or Grote & Robinson
- Saund. Wm Saunders London & Mans Co Canada
- P. Ag Rep Patent office Agricultural Reports.
- ✓ Malch Malch first annual report of the noxious insects of the state of Illinois 1868, 4 papers in TESP.
- ✓ Riley
- ✓ Packard.
- ✓ Reak. } Tryon Reakert. Proceedings of the Entomological Society. Phil &c.  
 ✓ TESP. }  
 ✓ Mor. Catalogue of the described Lepidoptera of North America by John G. Morris  
 published by the Smithsonian Institution Washington D.C. 1860
- ✓ Mor Syn. Synopsis of the described Lepidoptera of North America by John G. Morris  
 published by the Smithsonian Institution Washington D.C. 1862.
- ✓ Edwards. Synopsis of North American Butterflies commenced. Part 3 in the Butterflies of North America by Wm H. Edwards. Pub. Philadelphia  
 by Wm H. Edwards.
- Lint. Lintner J A Lintner formerly of Utica now of Albany Ny.
- ✓ Ent Entomologist American Entomologist by Malch & Riley. Published by R. P. Stanley & Co. St. Louis Mo
- ✓ BSNH Boston Soc. Nat. History
- ✓ Revision of American butterflies by Saunders  
 see Am Nat. O. 334  
 begun Am Nat. for July vol 6
- ✓ Microlepidoptera directions for collecting by  
 Lord Malinsham. Am. Nat. O. 275
- ✓ Where a note of interrogation (?) is placed either to a description - plant or name it signifies  
 that it is doubtful.

*Papilio Linn* club of antenna. unscate wings with secondaries with long tails or lobes  
 Lys. smooth or heavily flecked with black. provided with 4 retractile tentacles  
 prolonged from the 2<sup>d</sup> segment. I emit a strong odor when alarmed  
 Chrysalis suspended by a thread across back. Affected by the tail Nov Syn. 1

*Papilio Linn* *afar muscelles* Syn L.P. 2/1 I xxvii/2. *Papaw* Fr. 8

Caterpillars (under mass.) Europe Katz Hyman  
 destroyed by *Banchus cornutus*. 11/36

Caterpillars (in general) Europe.

iii > destroyed by *Microgaster nemorosus*. Europe Hyman  
 Hyman. 10/25

Caterpillars smooth  
 Lepidoptera, eggs destroyed by *Telenus* (Europe) Paul 194

Butterflies food: consult Ann Nat III 212  
 from Scudder  
 Great work 330

Butterflies. Species existing in the world  
 estimated by P. Macdon of Oberfeld.  
 & quoted by Bates in an address, at not fewer  
 than 8,740. The number of males as  
 twenty six to one of *Boche/le*. I answer at  
 the conclusion that 129,760 species exist  
 in the world, the Scudder's opinion however  
 estimates them at 227,260. Species  
 Ann Nat 442. 14

*Papilio asterias*. Lar. green, whitish beneath, each segment having a transverse black band  
 with orange spots. & a row of holes (orange) on first segment.  
 Ins black, a double row of black spots on back & a broad band of yellow  
 spots across the wing, a row of yellow spots also near hind margin  
 hind wings tailed. 4 blue spots between the yellow band & row of  
 outer spots near the hind angle is an eye like spot of a yellow color  
 female differs only in having merely a few small & distinct yellow  
 spots on the upper side (Spania 3. 50 to 600)

sporochlor club  
exposed horns  
papilio lat. butterfly.

# Section 1 Rhopalocera

Tam. 1 Papilio

Genus 3. Papilio

"Papilio" Birds wing tuiled lateral fullness  
very short. Larvae with a humped back 1897  
Genus 1. *Temnopachis* } unrepresented  
" 2. *Orthoplerax* }

"anal edge of hind wing, concave or folded  
& mid longitudinal nerve of fore wing, fusiformly  
emits 11 nerves, posteriorly, radius very short, not extending  
in front of the eye. & the three veins almost entirely  
black of anterior forms the elongated median veins, single  
very broad, elevated, cell plainly elevated, callosities with 2  
black spots, the outer on each  
W.

apex prop name *Papilio apex* Weid. PESP. 2. p. 146. Mor Cat. 2. Mor Syn 8. 1384 pl. 1. SVA pl. 4  
\* *marcellus*. (See *P. marcellus* also) pap 3  
Black barred Swallow tail SVA.

Lar. found in Maryland feeding on foliage of *Papaw* in July.

apex & marcellus  
the same insect (Can Ent 2. 132) *Pupa*. (See) May 26. SVA

Ins (See) June. " flies very swiftly. Frequents damp places. SVA  
& rather plentiful in Md. late summer & autumn

Hab. U.S. South "S. Md. Vaccinium (Dr A Schott) Md Va. (S.G.) LVP pl. 2.  
allende St to Phil Southern Wood "S. (Edwards Penn) fig 1. Md July

"Note by Meadoncyer" it is not fully determined whether  
"Apex & P. marcellus are varieties or distinct. PESP 2 p. 146  
"egg laid by apex. have given nothing but true marcellus butterflies"  
"Lar. for M Edwards. 24 June. 1890."

food plant. *Papaw* Md

& *Monarda palestinensis* SVA

*Porcella pygmaea*

West 2 258

Parasite

larva brown black, with several white spots  
larva being nearly black with 2 lateral white spots  
the eyes of the antennae black. Head, 1. length less than 1 mm.

asopias } *Papilio asterias* Weid. PESP. 2. p. 146. Mor Cat. 2. Mor Syn. 5. 1384 pl. 4. Harris 265.  
stained } " - *Inodes minor* SVA. pl. 1. (Adversary for a var. & also Syn.) Pack. 246

Black & yellow Swallow tail. SVA.  
LVP pl. 1. Md  
fig 1.

E. deposited on a leaf July. singly (Mass) May (Md) L. pl. 26.  
fig 5-8 Md.

L. attain full size in ten to twenty days in July, a second brood

attain full size in Sep. & Oct. They feed upon the leaves but are particularly  
fond of the blossoms & seeds.

Pap. suspended horizontally on branches or under  
in the pupa state from nine to fifteen days, the second brood hibernates in  
the pupa state & the perfect butterfly appears the following spring.

Ins. made its first appearance in Utica N.Y. May 6th (J. H. S. Linn. PESP 6 p. 128.)  
in Md. it appears sometimes even earlier. July (Mass. Harris)

This insect is abundant at London Can. & is reported to be found near  
Quebec. 2 broods in a season. (Saunders notes,  
Ins in N Eng State. June. 2nd brood Aug. Pack. 246)

Hab. U.S. West Ind. Can. Newfoundland Weid

- Rocky Mts Colorado Blackbird PESP 6 p. 123.

N.Y. Sta. Md. PESP

Allende Wood "S. Can. Color New Mex Mex. Edwards Syn

Can July (Can Ent 2/8)

14th July, Ind. Newfoundland Bay Can Ent 1. 67.

Cacoma. Can Ent 1. 11

Food plants *Anise* *Carrot* *Caraway*

*Celery* *Will* *Fennel*. *Hemlock* *Sassafras* &  
*Water*

*Parsley* *Parsnip* *Water parsnip*

*Rue*.

Lar. green banded with black with brown  
spots in black band. when ovulated it hibernates  
from the prothoracic ring, a r shaped fleshy  
organ emitting a roseodour, older this is more  
a means of defence against ichneumon flies  
& other enemies

*Papilio brevicauda* Saunders. Pack. P. 245. description  
"a very remarkable variety of *P. asterias*. Pack

+ ab St Johns. Newfoundland

short tail.

(1





calchas }  
from name }

*Papilio calchas* see *P. palamedes*

Calverley

*Papilio calverleyi* n.sp. Grote PESP. 2 p 441. Pl. 10  
Calverley swallow tail.

This insect was captured by Mr Lewis Archer in the village  
of new lots, Queens Co. Long Island

{ J. L. Meade in Am Nat. 3. 332 describes a second specimen } Ins. pl. G.  
captured in Florida & supposed to be a var. of *P. Asterias* } fig 13. for fig by Mr. Grote.

*P.* is not this a hybrid between *P. Asterias* & *Phurmas*?

*P. calverleyi*. (a variety of *P. Asterias*. Edw & Syn. p. 3.)

*Papilio cresphontes*. Cramer. Meid PESP. 2 p. 146.  
Thoas. Hbst.

For description habits &c see *P. Thoas* p. 5. as Meidemer in a note  
to *P. Thoas* says "good authorities are divided whether *P. Thoas* & *P. Cresphontes*  
are distinct species or only a climatical modification of *P. Thoas*"

See Meid PESP. 2 p. 149.

Hab Southern St., occasional in Illi., Mich., West Va., Ontario, (Edw & Syn)

*Papilio eurymedon*. Meid. PESP. 2 p. 147. Mor L<sup>(Guer?)</sup> Mor Syn 3.  
" *retulus*, var. <sup>by R. G. & J. H. H. H.</sup> Meid. PESP. 6 p. 126.

Hab. Calif (Mor.) Cal. Wash. Ter. Col. (Edw & Syn)

Ins. pl. 25  
fig C. coll of Dr Morris

note. "Closely resembles *P. retulus* & will probably  
prove a mere variety Meid. PESP. 2 p 149.





*Papilio* (aff) *glaucus*?

57

Hab Utah 2 specimens taken by Dr Palmer at St. Thomas Utah. same size & these are much smaller than our *Glaucus* & differ somewhat in ornamentation. In fig 8 Utah

*Papilio glaucus*. Hbst. Meidemo PESP. 2 p. 147. Mor (Lam) 1. Mor Syn. 2. BHL p. 9.  
" *turnus* ♂ for habits & see *P. turnus*. Lar pup. Pl.  $\frac{\Delta}{2}$  fm BHL.

*Glaucus* butterfly Fitch In N. S. Mag. 1856 vol 16 p. 56 In  $\frac{\mu}{8}$  28. Ma not common  
Lar (my) lying rests upon a thin cob web spun over the upper side of a leaf. Food plants: Ash. Apple. Basswood. Cherry (under Schoka) Hop tree. Oak.

Hab. U.S. Ma.

Hop (Lindner) *Sassafras*. Storax. Tulip. Poplar. Prunus. S.W.

Note. "a remarkable dark aberration of various shades of the ♀ of *P. turnus*

Lar resembles *P. turnus* but has a blue spot above each eye like *glaucus* 16 spots in a transverse row (greenish) of upper lower, a similar row on each side of the 3 rings, forward of the last & a few lengthwise lines down on each side. The black with a row of small oval spots of a pale yellow color extending across the fore wing near the hinder apex 4.75 to 6.50  
chiefly confined to the Southern U.S. north of Pa the ♀ is usually yellow the dark ♂ being entirely unknown" Meid PESP. 2 p. 149.  
*P. Turnus* & *Glaucus* the same. ♂ & ♀ Walsh PESP. 31: 50  
anomorphous form of ♀ found in Southern States. Pack. 247.

*Papilio machaon* see *P. Zolcain* p. 6.

Habrons bay. Exons Can nat. 1/22

*Papilio marcellus* BHL. Meid PESP. 2 p. 148. Mor (Cramer) 2. Mor Syn 9. }  
" *sinion*. BHL p. 2 }  
" *ajax* Lar.  $\frac{\mu}{1}$  2. Ma.

For habits & see *Papilio ajax*, p. 1

Lar pup. Pl.  $\frac{\Delta}{3}$  fm BHL.

In  $\frac{\mu}{1}$  27. 1/2 8. Md.

*P. Turnus* darker body eye red  
Cob webbed. Spots near tail  
small yellow marginal streaks. Lines numerous obscure

Hab U.S. (ma) South & West. (Mor) Md. & Can (Sawyers) Food plant *Sassafras*  
" attracted to phil Southern Western St. (Cramer Syn)  
" one specimen was taken about 10 miles from London Ontario co Can, very rare" Saunders notes

Note. "there is considerable difference in opinion concerning the identity of *P. marcellus* & *Ajax*" Meid PESP. 2. p. 149.

Morris however states that *P. ajax* & *P. marcellus* are merely varieties of the same insect. *P. Ajax* being the spring and *marcellus* the autumnal brood (Mor Syn. p. 9.) This is also my opinion from specimens taken in Maryland. in early summer & autumn.



*Papilio palamedes* Hbst. Weid P.E.S.P. 2 p. 147  
 " Calchas. calcas. Mor. 1. Mor Syn. 7. B.D.L. pt 5.

LP pt A as calchas. fm B.D.L.

Ins pt 36 mtd.

Hab. U.S. West Ind. (Weid) South " States (Mor) Food plants Laurel family Probably Sassafras  
 Md. (S.P.) Virginia to Fla Gulf St. (Edw. & Syn)

*Papilio philenor* Hbst. Weid P.E.S.P. 2 p. 147. Mor (Lm) Mor Syn 6. B.D.L. pt 11  
 " astinuous Cramer. S.D.L. pt 3. Gay pt 1. P.D.L. pt 117. Pacl 248

Snake root Black Swallowtail. S.D.L.

Ins pt 9  
 fig 10. mtd

Eggs. dep. de in comp  
 Larva. taken July in Md.

Ins. pt 26 mtd

when young. gregarious & cover leaves with zigzag lines & with wings  
 Pupa, attached by tail to branch.

LP 117 fig 17. on Snake root  
 S.D.L. pt 117. on Snake root  
 Pacl 248. on Snake root

Ins. appears May & July (Geo) Aug. (Md)

" is in about 3 week. Pupa male no sex. 1st inst. 1st inst.

Hab. U.S. West Ind. Central America (Weid) Md. Lucayan (Dr. Schott.)

Can. usually rare but one summer very abundant near Hamilton Can. (Saunders notes).

atlantic to Pacific Coast Syn. Food plant, Virginia Snake root *Quercus laevis*

*Platanus* (Weid) (S.P.) (Edw. & Syn) (Pacl 248)

*Papilio polydamus*. Cramer. Weid P.E.S.P. 2 p. 148 Mor<sup>(Lm)</sup> 2. Mor Syn 13. B.D.L. pt 15  
 " archidamas?

*polydamus*, Edw. & Syn

Ins pt 31  
 fig 1. fm B.D.L.

Young dark green or brown. Dorsal in yellow  
 yellow stripe under side of hind wing dark green  
 brown with red dots on margins.  
 Csh. light brown with red lines yellow spots

Hab. Fla. Cuba Mex. (Edw. & Syn)

Food plant Birthwort

*Papilio rutulus*. Sav. Weid P.E.S.P. 2 p. 148.  
 " *eurymedon* a var. of. (C. R. Gray). Reakirt P.E.S.P. 6. p. 126

Note. "It is very probable that both *Lanmus* & *Rutulus* are local & completely  
 segregated forms of *Lanmus*." "should *Eurymedon* prove to be  
 a variety of *Rutulus* I.S.S. Reakirt P.E.S.P. 6. p. 126.

Hab. Pike's Peak, Color. For Cusip. (Reakirt) Vancouver's Isl. & British Columbia (Lord)

leaf green. Thick smooth. Topmost &  
 anteriorly on each side is an eye like  
 black central with blue surrounded with yellow 1/25 inch  
 yellow wings with a broad black border in which  
 are yellow spots with 4 black streaks the inner  
 extending across both pair of wings ex. 3. 4. 4. 7.5 inches

*Julia hoplar*?

L. green with 2 eye like spots on upper part on  
 side of 4th segment of body (concomitant head)

5





Turnus  
prop. name }

*Papilio* *sermon* Bdv. Meid PESP. 2 p. 148. Mon<sup>(32)</sup> 2. Mor Syn 9. 1842 pl. 3.  
" *proteolus*

Ins. pl. 25  
fy 1 from 1342.

Hab. U.S. West Ind. (Meid) Southern St. (Mon.) Fla. (S.) Yucatan (Dr & Schott)  
Fla. Cuba (Edwards syn)

var. in Meid cat. *sermon* is said to be a syn. of *Marcellus*?

*Papilio* *theas* Hbst. Meid PESP. 2 p. 148. Mon<sup>(32)</sup> 1. Mor Syn 7. 1842 pl. 12.  
" — *crephloides* ? (Cramer) see p. 2.

L.P.S. pl. 24. Florida

Egg deposited singly on a leaf.

Lar feed on foliage & sometimes very injurious to young trees

Pup. suspended horizontally on a branch or under fences

Ins. very abundant in Florida where there are Orange groves in

May to Dec. Food plants Lemon Orange Prickly Ash

Hab. Cent. Am. (Meid) Southern St. (Mon.) Fla. (S.) Can. (Saunders) Yucatan (Dr & Schott)  
Amherstburg Ontario C. Can. (E B Kell Can. Ent. 1. 19.) Mexico (Rau) (Am. Ent. 2/308)

" 2 or 3 specimens were taken several years since in the southern part of Canada a few miles from Chatham one of them now is in London. I have heard of no capture since." (Saunders notes)

Turnus  
prop. name }

*Papilio* *turnus* Hbst. Meid PESP. 2 p. 148. Mon<sup>(32)</sup> 1. Mor Syn 2. Har. 268. 1842 pl. 6. 7.  
albicans.  
glauca & var. Lar Pup. pl. 2. 1944. Md. 2. A. 1842. 1944.

Ins. 28  
1 Md.

Tiger Swallow tail Can. nat. p. 183. Large Swallow tail.

Large Yellow Butterfly. Fitch Tr. N.Y. Ag. Soc. 1866. vol. 6 p. 241

Egg dec. Can. nat. (Saunders) 1-53  
Lar. rests on a small mass of cobweb like threads spun on the upper side of a leaf. Taken Sep. in Md. on wild Cherry & Tulip popular. or just up leaf (Harris)

Pupa, attached to the side of a limb by the tail & a silken web passed round its body. (My (May) recia) may that winter into the pupa state in Can. Can. Ent. 1 p. 74

Ins. " earliest appearance (Wb.) 13<sup>th</sup> May (A. L. S. P. 3 p. 50.) June (Man)

May (Md) May but more abundant in July Canada. (Saunders)

" the dark variety does not appear to occur in Canada (Saunders)

Alaska (Saunders) Hab. U.S. from Hudsons bay to Florida West Ind. (Meid) Canada common (Saunders) & Mal (S.)  
Yukon Dall (Am. Nat.) 1898  
Pikes peak, Color. (Reakirt PESP. 6 p. 134) N.Y. (Fitch) somewhat common. Can. (July) Can. Ent. 2. 8 47, 48  
Atlantic Gulf Western St. British America from Nova Scotia to Fort Simpson (Edwards Syn)  
Saskatchewan, N.Y. (Can. Ent. 1. 11) Nova Scotia (Can. Ent. 2. 167) Vancouver Is. & B.C. (Lorr)  
Food plants Ash, black. Wild thorn, Alder, Birch & Scudler Am. Nat. Aug. 1869

Descr. of a sp. & half glaucous or black.

the other turning yellow. Edw. & Am. Ent. Soc. 3/207

Ash, Apple Baswood Cherry Hop be Oak Sassafras

Hop (Ginn) PESP. 3 p. 50. Wild cherry &

Tulip popular

Lar. bright leaf green, thick smooth, tapering & thickened anteriorly. on each side is an eye like spot black centre with blue surrounded with yellow 1/25 inch  
Ins. quite yellow (very) with a broad black border in which is a row of yellow spots (with 4 black streaks) the under side is yellowish across both pair of wings ex. B. 4. 4-7.5 inches

L. green with 1 eye like spot on upper part on side of 4<sup>th</sup> segment of body (counting head)

(5)





*Troilus*  
prop name }

*Papilio troilus* Hbst. Weid P.E.S.P. 2 p. 148. Mor (Hb.) 1. Mor Syn 5. Har 266. B 4 L pl 10  
" *ilioneus* S&A pl 2.  
Sassafras Black Swallow tail S&A. L.F. pl. 1. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

Ins p. 29. Mac.

Lar. when young folds a leaf together with silken threads in which it lives & moves to another leaf as its sustenance is exhausted - from the scent emitted by the caterpillars they are sometimes called "mellow worms." taken in July & Aug. (Mac) on Sassafras, in about 4 weeks complete its growth as caterpillar. Pupa suspended horizontally & formed in Oct. I remain unchanged) all winter

Ins. appears the following March (Geo) April (Mac) mid June. Har common in Maryland, but rare in Utica N.Y. (Linton) P.E.S.P. 3 p. 51. not uncommon throughout the western & southern parts of Ontario Can. (Saunders) not Hab. U.S. Can. Mex. West Ind. (Heis) N.Y. (Linton) Va. Md. (G.) Canada. (Saunders)

Hab Atlantic & southern St. Edwards Syn  
Can July. (Can Ent. 2 p.)  
Ins Aug Can. (Saunders) Can Ent. 1. 73  
more common South. Dub. 247

Food Plants Sassafras Spice wood (Saunders)  
Prickly Ash. } Lilac (eats sparingly) } { Saunders Am Nat. }  
Aug 1. 60

*vibiers* prop name

*Papilio vibiersii*. B.D.L. Weid P.E.S.P. 2 p. 148. Mor 2. Mor Syn 12. B 4 L pl 14  
vibiers swallow tail

Ins p. 38. fig 1. B 4 L. fig

Hab. U.S. West Ind. (Heis) South St. Florida. (Mor)

Fla. Cuba. (Edwards Syn)

*Papilio* *holicaon* LSw. Weid. P.E.S.P. 2. 148. Mor 2. Mor Syn 12.  
" *helicaon*  
" *machaon*

Fig 22 of European Machaon.

Ins. Specimen sent from Utah.

Ins p. 39. fig 10. Utah.

Food plants. Umbelliferous plants of P. Machaon. Europe  
Hab Vancouver Isld. Brit Col. (Lond.)  
Hab. Labrador. U.S. (Heis) Calif Europe Asia (Mor) Utah (G.) } Machaon. Rufous house  
P. Machaon Hab. Hudson bay Rufous house (Edw & Syn) } Hudson bay Edw. C. but 1/22  
P. Holicaon Hab. Calif. (Edw & Syn)

Note "The resemblance to P. Machaon is close & this seems hardly more than a variety of the European P. Machaon" Weid P.E.S.P. 2. p. 149.



*Papilio daucus* Bdr. Weid PESP. 2 p. 147. Reakins PESP. 6 p. 124  
 J. - 21 / fm Leut Wheeler Ex. Redings PESP. 1 p. 278  
 Part. 247  
 Hab U.S. Mex. Weid Color. (Reakins) Color New Mex. Edw & Syn  
 Kansas nr Rky Mt (Redings Rock 247)

*Papilio rutulus* Bdr. Weid PESP. 2 p. 145.  
 See before p. 14.

*Papilio Bairdii* Edwards PESP. 6 p. 200.  
 Baird's papilio or Swallow tail

Hab Arizona (Edwards) N Mex. Edw & Syn

*Papilio enora* Reak PESP. 6 p. 124

Hab Pikes peak (Reak) Color (Edwards Syn)

*Papilio piummus* Humbert. Reak PESP. 6 p. 127.

Hab Rky Mtns (Reak) New Mex. (Edwards Syn)

*Papilio Uthaska* Ws. Saunders In Best Soc Nat Hist. 12. 406  
 new species allied to P. Holoarctic.

*Papilio menenia* Reak Mist. --- PESP. 1869. ined

(Hab Jackson Co Fla. (Edwards Syn)



It differs widely from any other American species in  
the extent of the pure white color & in  
of the transparent space the shape

Hab Sierra Nevada

also in the shape of the

*Parnassius* Lar. club of anten straight, oval & elongated. 6  
black with small tubercles, a little hairy. the first ring fuscous  
tubercles in the shape of the letter Y head small round. Chrysalis  
with a bluish effluence, enveloped between leaves in a light web  
by transverse threads

✓ *Parn. Par Parnassius Clovris* (Edwards part 1)  
Taken ✓ Hab S. Utah. Edwards name from Great Wheeler Exp. from N. Edwards  
at Calif. low. J. V. 1/8. from Utah Hayden exp. from

Hab Ca

differs from *Clovis* in being 1/3.5 in expanse crown white color dorsal base black  
the two spots of equal size rounded color of spots bright red & always 10  
spots at base of transverse usually conspicuous.

*Geptalis (Halsman)* Minute Linn Syst. L. P. 755. Cramer pl 153. Edwards Syn.

Hab N Mex.

✓ *Neophasia Menapia* (Paris) Zeller. Meisen Ent. Monats. 10 p. 271. 1859.

*Pieris* Tau Soult. proc. Bor. Soc. Nat Hist 1861.

*Neonia* Paris. Sep. de la Calif. 1869. Edwards Butterflies. pt 8

L. prob fed on some coniferous tree J. V. 1/4 1/4 from Wheeler Exp.

Hab Calif Edwards

*Pieris* <sup>ee</sup> *Bookeri* Edw. Edwards Butterflies pt 8.

Hab Virginia city Nevada.

S. Utah. ~~from the same place as the~~

J. V. 1/9 ♀. Edwards. S. Utah from Wheeler Exp  
V. 2 ♂ " "

*Pieris* *oleracea* Har  
cata

Beltman. Rpt. from growers Assn  
Ontario 1871. 34

*Pieris* *virginica* Potbury Butterfly *Pieris* *oleracea*. Linn. 23. Ann. Rpt. 1845 Cal

Its size of olera  
more delicate of  
not uncommon  
often replacing  
taken by me  
(Edw G)

*Pieris* *oleracea*. 1859. Larva on Turnips  
white cabbage butterfly  
Eggs. from one to 3 placed slightly ab-  
glut to underside of leaf - 10  
10 days

*Pieris* *oleracea* Har.

23 (Ann. Rpt 1845)  
nat hist. 23.

Hab. Va. Can.

*Pieris* Schr easily distinguished by the antennae not being banded the palpi less compressed  
I never have the central stem or ferruginous spots which are always on dorsal cell  
of under side of wing of *Colias*. color generally white. Lar cylindrical, elongate  
pubescent. Chrysalis angular. & attached by tail & a transverse line May Syn. 16





female lays her eggs singly on underside of leaves.  
Larva feed inside head, & heart of Cabbage, entirely burying them  
& suspended by tail & a thread over back.

a correspondent of the American Entomologist for 1870. Nov. states it is estimated that  
the loss from this insect will in the vicinity of New York City alone exceed half a  
million of dollars

Carbolic powder superphosphate & lime together will destroy them. (Carbolic powder appears  
to be somewhat injurious with carbolic acid). Any salt not efficacious (Guano)

Pieris protidice

Southern cabbage worm or butterfly

Pieris Protidice Bois.

Southern cabbage butterfly.

Pellham Rep. fruit growers

Wm. (Palmer) 1871. 86

sometimes very destructive to cabbage in Miss &amp; Missouri

Remedy: beat dusts on cabbage, County South Atlantic states, Texas, Missouri  
Kill all. Am Ent.

Pieris rapae

Am Ent 2/76

pupa hibernata &amp; in New England the

early in April the chrysalids appear

days afterwards the perfect insect appears

the 2d or Autumn brood which hibernates as pupae on the trunk

of stony fences or boards, being suspended by a web of silk at the head end

of body into which the hooks of the tail are twisted &amp; by a thread of

silk around the body &amp; fastened at each side to the board or stone

in England said to have been found  
feeding also on Willow (Cutis)

Pteromalus puparum Linn parasite on

Pieris rapae Pack. 2<sup>nd</sup> Rep. Mon. 1/7.

Pieris rapae Zettl 1869.

→ parasites. Pteromalus puparum Europ.  
Microgaster glomeratus Europ.

Pieris rapae

Little Provancher. Nat. Can. 2. 1.

much amount of damage &amp; the best in

the author also states that previous

several specimens of Pteromalus were

that since that time not a single

one chrysalis of P. rapae discolored

A. S. Peckie Can. Nat. 18. 11.

introduction 4. 5. V. American ably

in Canada.

Hab. (Am Ent 2/79.)

Abie Provancher estimates  
that this insect destroys  
immensely 240,000 of  
loss hundreds of forty thousand  
dollars worth of Cabbage  
around Quebec alone

Pack 1<sup>st</sup> Mon. Rep. 5.P. rapae Riley, 2<sup>nd</sup> Rep. 1869. 108.

introduced 1856. or 7. having been taken in Quec

extended more than 40 miles from Quebec as the

most probably introduced in the egg state.

Larvae, thence out from some kernel

Parasite - prob. a tachinid although M. Provancher  
states it to be a Sarcophaga. Riley

Pieris rapae Remedes. "Salt is found more effectual than  
acid soap or guano. Obsr Ent."

Am the Guano Remedy. 20 parts

Pieris rapae.

Ag. Monthly 1872 217

first appearance in N. B. May or June 1872

Pieris rapae Riley 2<sup>nd</sup> Rep. 1869. 109.

Remedy by laying pieces of board between the cable

2 weeks about the surface of the ground the worms in

transformations &amp; can thus be easily destroyed. &amp; R

Saw green or white hellebore will kill the worms

be used on cabbages or if it is difficult to find the plants

the saponaceous compounds like creosote acid are effective

Pieris rapae. Linn. Zettl To My Ag Soc.  
Cabbage worm, or Turnip butterfly. 1869.

prob. introduced in the young caterpillar state

instead of egg as the insect does not move

in the egg state long enough for them to be

be hatched out. before the end of the season

fast but one week in the egg state

I. eats the shell of egg when first hatched

molds its shell into 3 times when new

to change into the chrysalis from a thence

around its body & fastens it hard fast with

legends a web or sort of silk

logella pupa state lasts about a week in warm

weather but varies much according to

the temperature.

Feb 1869

Feb To My Ag Soc. 1869.

Pieris rapae

in a gause net.

employing children to capture

the butterflies as they come

to the cabbage lot. Feb. 1869.

as the most effectual means

of destroying them, capturing

the pupae under boards, plates

buried near the plants

about 2 or 3 inches above

earth - which should be ex-

posed every few days, the pupae for

destroying the also remains in

although Mr. Riley states that white hellebore

will kill them worms if sprinkled over them

he has tried it & that although it is effectual

for the larvae of S. (Pieris) & G. (Gastrophysa)

the larvae of Lepidoptera are unaffected

although when the worms eat it

hellebore produces purgation. Is this a

recoar - then capturing the butterflies

separately not their eggs, the larvae of

fastidious, than is the only effectual

means, of saving the Cabbage crop





*Naturalis* Bdv. differs from *Teria* by its legs broadly separated & mostly palpi  
 those *anthracinus* species by the shortness of the antennae fly mainly in the male  
 on the anterior portion of body of the wings a small oval granular naked impression *Nov Syn 28*

*Anthracinus* Boid. — Lar. slender pubescent attenuated at both ends. Pupae naked  
 somewhat attenuated at both ends. ♀ attached by tail and a transverse  
 line differs from *Teria* in shape of chrysalis & by the  
 antennae being rather short. Terminal by an ovoid compressed *Nov Syn*  
 club

*Anthracinus* *Edwardsii* H Behr Tr Am Ent Soc 2. 303

larger than other Californian Sp. (Behr)

*Anthracinus* *Cooperii* H Behr Tr Am Ent Soc 2. 304 *Edwards*  
*Butterflies* Pt 6

Smaller than *A. Sana*

Ins pl R  
 by 6.8  
 from Edwards.

*Anthracinus*

In Spec in coll of Boston Soc Nat Hist.

labelled. Rocky Mtns. 8000 feet above level of  
 sea. P. A. Chadbourne.

Ins pl R  
 by 8. Rocky Mtns

*Anthracinus*

Specimen sent from St Thomas Utah  
 by Dr Palmer.

Ins pl R  
 by 16. Utah

*Anthracinus* *lanceolata* Bdv. Scudder P. Bost Soc Nat Hist 12/1896

Alaska. Scudder.

*Anthracinus* *Sana* Bdv <sup>Nov Syn 28</sup> <sup>Edwards</sup> <sup>Butterflies</sup> <sup>Part 7</sup>

half the females are of the yellow *Ins pl R*  
 variety. *fig 9. 11* from Edwards *fig*  
 See other note also

*Calliopyga* Bdv. distinguished from *Colias* & *Rhodocera*. by the absence of the rough costal edge  
 of primaries in male. by being destitute of angles. fly form of antennae which  
 are nearly truncated at extremity slightly arcuate. enlarge immensely from base  
 to extremity *Nov Syn 24*

*Calliopyga* *Eubule* Linn <sup>Nov Syn</sup> 11. 769

Was New England New York  
 taken on Fire Island Long Island

Genus 6 *Negres* unrepresentedGenus 7 *Nathalis*

{ differs from *Negres* by having the antennae standing apart from each other, long & bristly as in *Negres*, forming a tube of a distinct genus named *Nathalis* by Boudanal

Nathalis? ago.

*Nathalis* *col.* Chana. Weid P&SP. 2 p. 151. Mor 4.  
*irene* Fitch Jr N.Y. Ag Soc 1856, vol 16 p. 285.  
*joie* Bds & Mor

Irene butterfly, Fitch

Ins pl 32

fig. C. T. St Louis Mo.

Irene differs from *Sola* in having the underside of the primaries destitute of a central blackish dot. See Mor Syn.

Ins. 1.00.

yellow & differs from Mexican Sp. in having underside of forewing destitute of the central blackish dot & of the 3. blackish spots towards base

Hab. U.S. Mex. West Ind. (Weid) Rky Minn. Illin. Texas. Color. Cuba Honduras Mex. (Reak's P&SP 6)  
 (Weid P&SP 6 p. 205) Mo. S.C. (Irene) Mississippi valley. Fitch (Mor Syn) 1836

Irene flavo Xapis delight.

Genus 8 *Anthocharis*

(Anthocharis) Bdr.

(many varied named)  
 { *Mancipium* Hüb. Sefin  
 { fore wings rounded at tip last joint shorter than 2nd. Med. 87

*Anthocharis* *genetia* Weid P&SP. 2 p. 167. Mor 4. Mor syn. 20.  
 " *L'Hermierii* ♀ of Godt.

Ins pl 27

fig. 2.3 Md.

Ins. common in Md. in the spring

Hab. U.S. (Weid) Md. Va. (G)

food plants.

Cruciferous plants (Scud Am Nat. Aug 1869)

*Anthocharis* *Reakirtii* Edwards. Jr Am Ent Soc. Phil Vol 3 p. 369. Edwards Bull. Aug 1869  
*Reakirtii anthocharis* has been regarded as a form of *Sara*, but the ♂ of *Sara* are larger than the females differ upon the upper side & ♀ in Edwards desc. Ins 93. 35. for Edwards

*Anthocharis* *creuda*. Doubled. Weid P&SP. 2 p. 151 Mor 4 Mor Syn 0.

Ins pl 27

fig. 5. west. States.

Hab. U.S. (Weid) Rky Minn (Reakirt) west. States. S.C.

note " possibly identical with *A. ausonides* (Weid. P&SP 6 p. 135.)

see other notes also *Anthocharis*. *Sara* Bdr. Mor Syn. 21 Weid P&SP 2. 151 Pl. 11  
 Hab. Calif. Mor. 4 fig. 5. S.

*Anthocharis*. *ausonides* Bdr. Weid P&SP. 2 p. 151  
*Ausonia*, *hawaii* ♂

Ins pl. 8

Hab. Rky Minn. Calif. Color. (Reakirt)

note " This appears to be very rare & has only been taken in the neighborhood of Pike's peak. " Reak P&SP 2 p. 135.

Genus 9 *Solmaia*" *10. Thetis*" *11. Iphigeneia*" *12. Evonia*

unrepresented.

Genus 13 *Callidryas*

ext. as beautiful  
 sp. as a moth nymph

*Callidryas* *rubula* Bdr. Weid P&SP 2 p. 152. Mor 4. Mor syn 25. Bds pl 24. S. V. A pl 5.  
*semae* L.P. pl 6 Florida dur Ins. pl 13. Mor  
*marcellina* Ins pl 29 13. 14 Georgia Hüb. 1836. 1836.

Lar. feeds on Cassia (Geo)

Pup. Aug &amp; Sep — " &amp; also taken in Fla

Ins. Sep &amp; Oct — " &amp; also taken in Fla

Food plants. Partridge pea. Cassia

Hab. West Ind. Cent Am (Weid) South St. Geor. Fla.

Note. " *Eubela* & *marcellina* are regarded as being distinct. The only figures that entirely correspond with the insect taken within the U.S. are those of Boudanal & Edwards. most others, including Smith & Abbott seem to represent the tropical species, *E. Eubela*. " (Weid P&SP. 2 p. 154)



*Rhysocara*. <sup>134a</sup> differs from *Calliopygia* in arcuate antennae <sup>truncated, which enlarge from middle to the extremity</sup> & angular wings.  
 Males of a more lustrous yellow color.  
 Lar. slightly pubescent, attenuated at both extremities green with a paler lateral ray.  
 Pupae. much arcuate, spindle shaped at both ends, always attached by tail & a locus  
 = verse line over body. Mor. Syn. 22

usually Brazil St Domingo. Ins captured at Evanston Ill. by J. S. 9.10 sp. fm Mr. Hermann Stueckert. also North Ill. Rly. H S Boutel.

*Callidryas marcellina* Btl. Weid p ESP 2 p 152. Nov 4. Mor Syn 26 Eubule.

Specimen sent as *C. marcellina* by Mr Edwards.

Hab U.S. Mex. (Weid.)

Ins pt 3.  
fig 8 coll of Mr Edwards

[*Gonepteryx* West. (*Gonepteryx* Leach. *Rhodocera* Btz) } young angulated antennae short & clavate, tufted at base West. 57

very & feeding habits  
not sp & a wing.

Genus 14 *Gonepteryx* (*Rhodocera*)

*Gonepteryx macula* Btl. Weid p ESP 2 p 152. Mor <sup>34</sup> 4 Mor Syn 23. Btl. pt 23.

*Rhodocera* " Mor Syn.

" *ecclipsoid*

*Gonepteryx* (Leach) Morris

Ins pt 31.  
fig 7. Texas coll of Dr Morris

Hab U.S. West Ind. (Weid.) South & St (Mor)  
Texas. (Mor) Yucatan. (Dr A S Schott)

Good plant prob *Baccharis*?

*Gonepteryx* *Uside*. Mor. *Usia* PESP 2 p 152. Mor <sup>34</sup> 4 Mor Syn 24

*Gonepteryx* Leach of Mor.

*Rhodocera*. Mor Syn.

Ins pt 32.  
fig 7. Texas & Morris coll.

Hab U.S. West Ind. (*Usia*) Texas (Mor.) South & St (Mor.)

*Colias* <sup>Feb</sup> differs from *Pieris* in the shorter antennae inconspicuously terminating in an obconical club, in the black border to the wings & in the primaries usually having a black discal spot. The secondaries a central fuscous or orange above usually silvery below accompanied by another small fuscous or ferruginous spot on the insertion of the median nerve at the base of the secondaries below. *Mor Syn.* 26.

*Colias eurytheme*

*Tryphon repens.*

*T. reflexum.*

Laid on White Clover. *H. Buffalo grass* or Clover.

Eggs hatched July 1. *Papa.* July 15. *Im.*

Larvae scarcely differs from *C. Philodice* except in being larger & having the lateral spots of a brighter scarlet. *L. K. Mayhew. Sedalia Missouri in Edwards Bull. p. 4*

Has been a part of *Continuus* *L.* of a lively green with a brownish cast; stripes about the feet. *Miss. valley. Pacific slope*  
*Calif Texas Delaware* *Phedusa* a species of *Hosocera* probably other Leguminosae  
 and near *fm Geo. W. N. S.* plants. In *Behr* in *Edwards Bull. p. 4*  
 or *med Va. (Edwards)*

*Colias emilia* N. S. Edwards *Tr Am Ent Soc.* 3/2

*Cal Oregon* resembles *Alexandra* from which however it differs in breadth & form of marginal border in color of fringe in dorsal spot of secondaries beneath in the presence of a fuscous spot at base & in the absence of a greenish shade to both surfaces; hind wings also remarkably produced at outer angles. (Edwards)

*Colias arcadne* N. S. Edwards *Tr Am Ent Soc.* 3/2

a well marked & distinct species Edwards.

*Cal. Mokelumne hills Calif.*

*Colias eurydice* Bois. *Ann Soc. Ent France* 1852 *Edwards Bull.* 5  
 ♀ *Rhodocera Longirini* *Boisid. Ann Ent France* 1854 *p. 5*

*Calif Oregon*  
*Marin Co. near Sacramento*  
*San Francisco*

Is rare Local appears May & the ♀ as late as August. Probably appears periodically in larger numbers.

*Ins pl R*  
*Fig 7 10*  
*fm Edwards*

*Colias* ? *In Palmer* *Proc Acad Mex.* 2/3

*Colias Edwardsii* *Behr N. S. Edwards Tr Am Ent Soc.* 3/1

taken at high elevations near Virginia city.

This species is near *Emilia* *Im. R* 2  
*fm Edwards*

*Colias Edwardsii* *Behr. Edwards Butterflies* part 6.

*Sp fm D. C. Smart South Calif.*

*Ins pl* 3

myth name.

Genus 15 Colias

head very prominent ant. short -  
club gradual last joint of labial palpi minute  
anterior deeply bifid. W. 87  
Almost all colors are yellow with spots on a  
black ground. Antennae reddish

75

*Colias caesonica* Meid. P&S p. 2 p. 152. Mon. (Col.) 5. Mon. Syn. 27. 1842 pl. 22

? " - *polyphra* Meid. Syn.

? " - *polyphra* Fab. Mon. Cal.

In. plentiful in S. C. & La.

See p. 11. 1842. fig.

In. pl. 32. fig. 11. 1842.

Hab. U.S. West Ind. Mex. (Meid.) South. St. (Mon.) S. C. & La. (C.)

Good plants. Clover *Mitanga* Marygold. 1842.

" *Colias* (European) remarkable for their juridical or irregular appearance" Meid. 2 p. 331

*Colias chrysotheme* see *C. eurytheme*.

Bd. Ann. Ent. Soc. de Fr. 1852

*Colias eurytheme* Meid. P&S p. 2 p. 152. Mon. (Col.) 5. Mon. Syn. 28. Edwards Butterflies p. 14

*Amphidusa* Bd.

*Edusa* (Var. *Californica* Menestrier. Cal. Imp. Acad. Sc. St. Petersburg. In. pl. 32. fig. 13. 1842. Me.

*Edusa*? B&H Dec. p. 61

In. very rare Canada. (Saunders notes)

In. pl. 3. fig. 142. South. Calif. }  
pp. 2. 1842. }  
fig. 13. 1842. }

Hab. U.S. Can. British N.A. Hudson Bay (Meid.) South. St. (Mon. Cal.) Europe (Mon. Syn.)  
Arizona (Edw. P&S p. 6. p. 208) Texas Calif. Mex. (Reakirt P&S p. 6. p. 136) Md. & G. Cal. (Swain)  
Cancuneros Island. Pond. Colomb. (Lord)

*Colias edusa* Hb. Meid. P&S p. 2 p. 152. Mon. (Cal.) 5. Mon. Syn. 27.

In. pl. 3. fig. 1. 1842. from European figures

Good plant. Clover

Hab. U.S. Can. (Meid.) Europe. Asia Mon. Syn.

note "may probably be referred to *C. eurytheme*". (Meid.)

*Colias alexandra* Edwards Reakirt P&S p. 6 p. 135. Meid. p. P&S p. 2 p. 152. (fig. 142)

(high up on the mountain near the snowy range)  
In. pl. 3. fig. 1. 1842. moderately abundant but very wild & difficult to capture on account of the unevenness of the ground (Edw.)

Hab. Colorado (Edw.)

*Colias behria* R&S Edw. P&S p. 6. p. 201 Meid. O. Edwards Butterflies p. 2. re. 2 fig. 57.

In. pl. 11. fig. 1. 1842. 2. 1842. from Edwards fig.

Hab. Yosemite Mtns 10000 feet above level of sea. (Edw.)

*Colias chortina* Edwards 70<sup>th</sup> 2. Butterflies. pl. 2 fig. 1 to 4.

In. pl. 11. fig. 1. 1842. 2. 1842. from Edwards fig.

Hab. forage of Slave river taken by Mrs. Ross 1862 (Edw.)







*Colias labradorensis* Saunders no. 257.  
*Labrador Colias* represents our *C. Philodice* (not this *C.* males below)  
 Not Labrador

*Colias nastes* Bois. This is *C. P.* 2 p. 152.

*Not Labrador* Bois

"Probably a modification of *C. philodice*" Mead.

*Colias pelidone* Bois Mead (Syn of *C. philodice*) PESP 2. p. 152. Mon 5. Mon Syn 30  
 BSL pl. 21.

Ins pl. 32  
 1/2 3 Mead.

Food plant - Clover.

Hab Labrador (Mon Syn) M<sup>2</sup> (JG)

"merely a synonym of *C. Philodice*" (Mead)

*Colias philodice* BSL, Mead PESP 2. p. 152. Mon (Bois) 5. Mon Syn 29. Horn 272.  
 Syn. *pelidone*. *euphrosyne*. *desjardesi*. *hyale*. *phicomme*. (Mead)  
 See also *C. nastes*. (Mead)  
 BSL pl. 21.

Eggs. 24 July Can. I describes Saunders Can Ent 1. 54.

Lar. taken in Mead July on Clover.

Ins pl. 32  
 1/2 1. 2. Mead 9. White var 3 black var M<sup>2</sup>.  
 Ma.

Ins. first appearance Apr 30. & as late as Nov 5<sup>th</sup> probably 3 broods in one year  
 the white variety is very rare (Linton Utica N.Y. PESP 3 p. 55.) common Canada  
 where the light variety is sometimes taken (Saunders) Several white specimens taken  
 late summer & early autumn. Mead. (The black variety was recently sent by  
 Mr Worthington of Chicago in his letter accompanying it he states "This specimen  
 was taken on an upland grass field about a mile to a mile & a half north  
 east of the village of Palmyra N.Y. about a quarter of a mile from the meadows  
 there were two both flying from the grass & clover across the road to a wheat  
 field the one I send you was the only one captured". "Several have informed  
 me they think they have seen others" "I am convinced however that it exists there  
 as a distinct species having seen it myself alive once since near the village  
 about a mile from where this was taken" (What Worthington Chicago Aug 1868)  
 2 broods in Canada - one appearing Apr & May & the other is only (Pack. 230)  
 Pupae state lasts about 10 days. Four species themselves to the stems of plants by the tail I can transverse -  
 a loop of other thing remain the bodyhead upwards

Ins very numerous around  
 puddles of water in the  
 road. Mead June

Pupae state lasts about 10 days.

Food plants

Clover

*Superius peregrinus*, blue lupini (Saunders)

Garden pea Lucerne Medicago (Saunders)  
 (M<sup>2</sup> Nat Aug 1868)

Is exceedingly abundant - Can 3<sup>rd</sup> Aug 1869, in 10 miles  
 One it was computed that about 1000 specimens were seen  
 at least one for every mile travelled. C. S. B. in Can Ent 2. 48

Hab. U.S. Labrador, Can. Hudson bay greenland. (Mead) Can common (Saunders)

Color Pike's peak. (Realist PESP. p. 135) Mead (very common JG.)

Sadounsa. Caccouna (Can Ent 1. 11) Nova Scotia. Can Ent 2. 157. } Caucasus Ireland  
 } Brit. Colon. (Lord)

*Colias horwayi* Edwards (var) Edwards butterfly pt. 4.

Ins sent from Calif.

Ins pl. M<sup>2</sup>  
 1/2 8. Calif

Hab Calif. (JG) In valley of the Mississippi to Pacific } Edwards  
 & occasionally in mid states & Can

*Teneas* (Swainson) differs from *Pieris* in having palpi furnished with shorter & more  
 & last article very slender & from *Colias* by its more delicate texture arcuate antennae  
short. laterally compressed club & wings destitute of the silvery spot below. *Nov. 23*

*Colias* ~~missouri~~ Scud. Pack 267. Scudder D<sup>r</sup> Port. Soc Nat Hist 12. 606. Pack. 251  
 Hab north of the great lakes. 22. July. Michigan Lat. (Cousin Can Ent. 1. 67) Alaska Sweden 79  
*Colias cincta* Scud Pack 267. Pack. 251  
 Hab fm Port Simpson to Gulf of Georgia. Pack. 251

*Colias leucophaea* Pack No. 21 6 p 130.  
 Scudder's *Colias*

Hab Colorado

*Colias helena* Edwards P<sup>r</sup> 3 butterflies ♀ Edwards P&S.P. 1863. Edwards Butterflies  
 pt. 2 p 149 5-7.

Hab Taken by Mrs Ross.

Mackinac river. (Edw 03)

Ins pl NI  
 1/2 3. 9 58 fm  
 Edwards fig

Myth name. Genus 16. *Serica*

*Serica delia*, Hab., Heid P&S.P. 2 p 153. Mor (Cramer) 5. Mor Syn 34. B&L pt 18  
*auria*

Lar pl A  
 1/2 4. fm B&L.

Ins. pl B  
 1/2 13. 14. " " "

Food plants Cassia Clover Glycine. B&L

Hab U.S. (Heid) South St. (Morris)

Note. "A doubtful species the ♂ is probably *S. lisa* & the ♀ *S. jucunda* (Heid)  
 " fringe of wings rosy" Mor Syn.

remarkable pleasant

*Serica jucunda* Bois. Heid P&S.P. 2. p 153. Mor 5. Mor Syn 35. B&L pt 19.

Lar pl A  
 1/2 5. fm B&L.

Hab S.C. "Theater. (D<sup>r</sup> A Schott)

Ins pl E  
 1/2 12. fm B&L. & 3. 32.  
 S.C.

" fringe of wings white" Mor Syn



*Tenias* *lwa*. Bod. Meid. PESP 2 p 153. Mor 5. Mor Syn 34 BSL p 19.  
 " <sup>nica</sup> <sub>smilax</sub>  
 Ins. 2 specim taken in Canada by Mr Saunders. LK p 4. BSL fig

Food plants. *Cassia* *Clouet* *Glyceria*  
 Ins p 32. BSL

Hab. U.S. West Ind. (Meid) South St. (Mor) Can. (Saunders) S.C. (B)

*Tenias* *nicippe* BSL. Meid. p. BSL 2 p 153. Mor (Foot) 5. Mor Syn 33 }  
 BSL p 20. Say p 30 }  
 F.C. Og. Rep. 1865 p 105.

Lar taken plentifully on *Cassia* July in Florida

Lar p A. 8. 1841 fig. 19 5 Fla.

Pup suspended horizontally on a leaf or branch.

Ins p 32. 14 10. 12. S.C. & Fla.

Ins. very common in Florida

Food plants *Cassia* *Glyceria* *Clouet*.

Hab. U.S. West Ind. Mex (Meid) South St. (Mor) S.C. & Fla (B) Pa (Meid)

Guatemala (F.A. Schott)

note "a citron colored variety is sometimes taken in Pa" (Meid)

*Tenias* *mexicana* Geyer Meid. PESP. 2. p 153. Mor 5. Mor Syn 36.  
 Mexican Texas.

I p I. 19 8. Texas.

Insect Specimen sent from Texas by Dr Lincecum I. p R. 19 12. for Mr Halybrett.

Hab. U.S. West Ind. (Meid) Texas (B) Border Arizona & Sonora. (Dr Palmer)

*Tenias* ?

Ins p 32. 19 8. Texas. Dr Morris coll.

Hab Texas

*Tenias* — 6)

1869 Dr Palmer br. air & Tex N/6



## Sanaia Boas

Head a little narrower than thorax, antennae rather long, unscabrously  
 terminating in club. Palpi remote, last article short acicular & straight  
 abd. rather thin. Wings with a submarginal venate. Secondary  
 of wings have usually towards the anal angle a very black spot or lunule  
 divided by a grayish ray in relief placed in relief on extremity of nervure  
 Mor Syn. 37

## Sanaia archippus. Em. Ent. 1 p 29.

19<sup>th</sup> Sep. 1868. P.B. Sibley of St. Joseph Missouri sent a spec. of this insect  
 to the Em. Ent. with a statement that he saw millions of them filling  
 the air to the height of 3 or 400 feet flying from north to south  
 & quite as numerous as the grasshoppers had been last year. Am. Ent. 1. 29.

This same insect was sent to Dept. Ag. in 1867 by Mr. A. Crocker of Kansas  
 who also stated, that they were migrating in vast numbers in his neighborhood.

a flock of 30 in Texas. mentioned Em. Ent. 2. 260  
 Ins resembles in coloration & ornamentation. *Nymphalis decaus*. Gbst. } Malak. Am. Ent. 1-191  
 } *Antonia bullipes*  
 } artist. on.

Sanaia archippus. Riley. 3<sup>d</sup> Rep. 144

Abundant, annually. Ins. June & October. Miss. late broods hibernata

When young 0.12. cylindrical & much of the same thickness throughout  
 head black. color. body. pale greenish white with horns on and posterior  
 part of body showing a more black conical point. Smith 2. transverse oval  
 black mark, near together on 1<sup>st</sup> joint covered with minute black bristles  
 arising from more minute many underneath but 3 mostly at each molt.  
 The horns become relatively longer. - acquire full size sometimes in 3 weeks  
 when full grown it spins a little web of silk to the underside of any  
 object. It may be resting upon a leaf down & in a curved position  
 pupa suspended head downwards. pupa state lasts 10 or 12 days.

Destroyed by a *Tachina*  
*archippivora*

when attacked by the *Tachina* the larvae generally  
 perish a day or two before they are full grown  
 when they grow to the size of the head legs become  
 black & decayed. while the *Tachina* maggot pierces the  
 skin & all to the ground when very thickly a very large  
 fluid from the breathing pores & holes made by these maggots forms  
 long white nematode threads & filaments.  
 Both brood of caterpillars not attached. Riley

*Sanaia*. Larva a smooth with few pairs of simple fleshy  
 flexible processes. Chrysalis rather short cylindrical with brilliant  
 golden spots. Ins. wings wide discoidal cell clear. Harker of  
 Tarn simple. Mor Syn. 38

*Heliconia charonides*. Com. Sayawa in Tern 27

Slow of flight. Fearless. Flutters along  
 heavily along over low herbage at the  
 side of roads. Invariably mounting as  
 high as ones head except when alarmed

*Heliconia* Fab. palpi extend a little beyond clypeus. Wings oblong narrow  
 It hatching feet in both sexes. Mor Syn 39

*Nymphalidae* larvae cylindrical spinous the whole length or only on head

*Mechanitis californica* Reak. PESP 5. p 223.

Hab Los Angeles (Cal.)

The caterpillar of *Sanaia* is a very beautiful insect, not much resembling the *Heliconia* which it resembles in color. It is a very beautiful insect, not much resembling the *Heliconia* which it resembles in color. It is a very beautiful insect, not much resembling the *Heliconia* which it resembles in color.

Myth. name.

4<sup>th</sup> Fam. *Nanais*Genus 1. *Euploca*

unrepresented.

Genus 2. *Nanais*.

Far. pl. 1.

fig 2. Mid. aug.

In. 3<sup>d</sup> Sep.

Mor. 280. Say III. pl. 57.

Am. Ent. 1. 191. fig.

*Nanais archippus* Bdl. Meid. P&S.P. 2 p. 513. Mor. (Tab) C. Mor. Syn. 37. S.V. 2. pl. 6." *flexipennis*. Cramer 8 1780." *eripennis*. Cramer 9 1775.destroyed by *D. archippus* (Rely 3<sup>d</sup> Sep. No. 150)

Large Black &amp; Orange. S.V. 2.

Eggs deposited Missouri Mar.

Lar. feeds on *Asclepias* (Aug. (Mid) I. Sum & July (Mon)

Pupa suspended by last. Ex. (Geo) S.V. 2. { hibernates in about 2 weeks. &amp; changes its

Ind. hibernates. (Rely) Ibrahim May Dec. S.V. 2. { hibernates in about 2 weeks. &amp; changes its

Ind. sometimes attracted by carrion (dead fish) Bethum Can. Ent. 1. 48.

Ind. hibernates in the perfect state on food plants. Milk or Silk weed especially *Asclepias* (Rely (Am. Ent. 2. 200) & probably *Cyclopium*. (Scudder Am. Nat. Aug. 1860)

forming large

ment of Rely 3<sup>d</sup> Sep. 187flock of *Archippus*

(Am. Ent. 2. 210) in Texas 1870

winter in the perfect state on food

plants

light mentioned

by a correspondent of the Sep.

of the 1870

Nova Scotia rare

Can. Ent. 2. 157

Cramer 8

Cramer 9

Cramer 10

Cramer 11

Cramer 12

Cramer 13

Cramer 14

Cramer 15

Cramer 16

Cramer 17

Cramer 18

Cramer 19

Cramer 20

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Cramer 279

Cramer 280

Cramer 281

Cramer 282

Cramer 283

Cramer 284

Cramer 285

Cramer 286

Cramer 287

Cramer 288

Cramer 289

Cramer 290

Cramer 291

Cramer 292

Cramer 293

Cramer 294

Cramer 295

Cramer 296

Cramer 297

Cramer 298

Cramer 299

Cramer 300

Cramer 301

Cramer 302

Cramer 303

Cramer 304

Cramer 305

Cramer 306

Cramer 307

Cramer 308

Cramer 309

Cramer 310

Cramer 311

*Agraulis* <sup>Bdv.</sup> club of antennae flattened more elongate less rounded than in *Argynnis*  
*primarius* sinuatus Mor. Syn. 461.



Emphoridae

1879. distinguished by reduction of form of fore feet, legs which are not fully reduced with hair. Labial palpi proportionally longer. Wings more robust, posterior groove a narrow band. Calyptellus long in form. Myriapides reduced to tail.

14th Jan. Nymphalidae

Ruf. 91 a nymph

"distinguished by the rudimentary structure of the fore legs of both sexes &amp; Met. 2. 353

Genus 1. Eucides Cent Am. Mex Ind. . Genus 2 Coloeneis Cent Am Mex Ind.Genus 3. Cethosia unrepresented.

(apparently a new one)

Genus 4 Agraulis

vanilla

Agraulis vanilla? Exam. Meid PESp. 2 p 516. Met (Linn) 7. Mor Syn 40 PESp. 1865. p. 106 }  
" passiflorae. SFA pl 10 Lar Pup.  $\frac{18}{19}$  8. 36.

Great american Fritillary SFA.

Drs pl.  $\frac{36}{19}$  3. 56

Lar found abundantly feeding on foliage of "Maypop" Passiflora in the Cotton fields in S.C.

Pup. suspended by tail July.

Foliage of

Food plant \* Maypop. or Passion flower

Parasitic with menopis? }  
Pg 23. 3{ L. 150. light chestnut brown with the longitudinal stripe down each side & covered with spines head square with spines  
suspended by tail & has oval & narrow  
J. 275. L. 5. 25. bright chestnut brown. Anterior & posterior on veins with black the underside has bright metallic silver spots

Hab. U.S. West Indies Central America Mex. (Meid) South St. (Mor) S.C. Fla. (S.G.)

Yucatan (S.G.) 25 Oct

\* The fruit of the thrida passion flower in S.C. is known by the vulgar name of Maypop, owing to the peculiar cracking sound when bursting open by being trodden underfoot

Genus 5. Clothide then Ind. Mex.Genus 6 Corrochorea 7. Lerema 8 Sachnoptera 9 Massarax 10 Atella unrepresented.Genus 11. Exploicta.

Exploicta claudia BDL. Meid PESp. 2 p 516.

Agynnis columbina (Godt) Mor. 7. Mor Syn. 44 BDL pl 41. S.G. 30 Ag Rep. 1851 p. 61. 1853 p. 102.

Agynnis columbina  
hesperia  
thaisL.P.  $\frac{44}{19}$  4 GeorgiaDrs pl.  $\frac{36}{19}$  Georgia

I very abundant in Cotton fields near Columbus Ga. feeding upon the wild passion vine, one specimen kept in confinement fed sparingly on Cotton leaves. (I fed by BDL p. 445. &amp; probably that of one month)

Pup. suspended by the tail under fence rails exceedingly plentiful but most of them destroyed by a small parasite &amp; wing fly. see Hymenopt. 185 p. 16.

L. appears eager for water &amp; does. Can Ent 2. 144

Foliage of

Food plants \* Passion flower

also feeds very sparingly on Cotton

Violet Edwards. Can Ent. 2. 144

Lar. 1. 20. bright chestnut. 2 longitudinal black streaks on each side little broken band of yellow under.  
P. 070. pale whitish green with black roundish marks & golden spots  
Drs 3. 00. bright chestnut brown. brown spotted with black.

Hab. U.S. Mex. West Ind. Cent Am. (Meid) Rocky Mts Color. N.T. Pa. (Reakirt PESp. 1865. p. 106)

Arizona (Edwards PESp. 6 p 208) S.C. Geo. Fla. (S.G.) \* Canada (Saunders notes)

Pa. (Edwards)

\* "one was taken several years since at St Catharines by Mr D W Beadle. (Saunders) parasite. Hym pl 5 p 15.

*Argynnis* Lat. *antennae* rather long abruptly terminale by a flattened club  
grooved, the under side usually has narrow (or silvery) spots  
 or white or ferruginous maculae reflexous, Wier Syn. 41  
miss sinuate or dentate. Wier primaries not sinuous. N. 19.

*Argynnis bellona*

*Pieris*

" Poud. Ann Nat. VI 573.

Single brooded  
 eggs deposited late in the season. The young caterpillars  
 after hatching, the egg shells <sup>are</sup> very fragile and are very barren  
 as from these caterpillars attain full size change to  
 chrysalides. Very early change to butterflies,  
 there is Sept. Aug eggs for next years brood



Genus 12 Argynnis.

{ Argynnis Fab. antennae with a short abrupt club eyes rather large brown head large. Meis. 88

Argynnis aspharath. See A. Idalia p. 16. Mor 7. Mor Syn 47.  
 variety of A. Idalia. Meis. P&S.R. 2 p 517.  
 Ins. found by Dr Fisher in July on Succasunna plains New Jersey near  
 Scoleys Mountain

Argynnis adrastra. Bois Meis p E&S.R. 2 p 516 Mor 7. Mor Syn 0.  
 added to!  
 Ins pl. 31  
 fig 4. Calijon

Hab Calif

Argynnis columbiana see Euptoicta claudia p. 14

Scudder Dr Post Soc Nat Hist XI 376. Edwards butterfly pt 1 pl 3  
 Argynnis aphrodite. Fab (Edw & Butler?) Meis p E&S.R. 2 p 516. Mor (God?) 7. }  
 cybele. Syn. (Meis) incorrect. Harris 283. Mor Syn. 48. -

"double brooded in the northern states according to Scudder { Ins pl. 16  
 appearing about the mid of June & fresh pieces later in August } P&S.R. 233. fig 5. 5. fm Edwards fig.  
 note A. Aphrodite in the northern states has only one brood annually in  
 Western Virginia 2 broods. June & Sep." thus "fed upon all kinds of wild  
 violets at night but he concealed during the day beneath chips or stones  
 on the ground the larvae in appearance resemble the Lar of Vanessa Antiopea  
 I have found early in July (Mr. J. W. Beadle St. Catherine's Can.) see Edwards  
 \* This sp. occupies the middle belt of the Atlantic slope (Edw) Food plants Violets Mr Beadle Can Ent 175.

Hab Can (Can Ent 2 p 515.) - Hab. U.S. Can. Hudsons bay. (Meis) Va (Edw) Prob violets Scudder line Nat. Mag 1869  
 N.Y. Can. Pa. Mex. Ga. (Edw) Nova Scotia Can Ent 2 p 157  
 Ins. very common in low grounds in latter part of July beginning of Aug. (Man)

Argynnis cybele. Fab (Edwards) Hab. Meis p E&S.R. 2 p 517. Mor (God?) 7.  
 Aphrodite & cybele incorrect. Mor Syn. 42. B&S. p. 45.

Great Spangled Tortellary Can nat. p 261.

This sp. occupies the southern belt of the Atlantic Slope (Edw) Ins pl. 16  
 11 9 fm Edwards fig. pl. 35  
 88 Md. Edw & Anthony

Hab U.S. West Ind. (Meis) Meis (F.G.)  
 also { N.Y. N.T. Pa. Va. (Edwards) Can (Can Ent 2 p 515) Food plant probably violets Edwards  
 & westward to Illan } Scudder line Nat. Mag 1869.

Note "until lately this species has been confounded with A. Aphrodite which is  
 larger & more tawny & dusky in coloring (Meis).  
 for difference see Edwards butterfly pt. 1

Scudder Proc. Post Soc. Nat. Hist XI. 376. 80

Argynnis bellona. Har. Meis p E&S.R. 2 p 517. Mor (God?) 7. Mor Syn. 45. Har 287.

Ins. lumps meadows late in Summer (Pack 253, Ins pl. 30  
 " found on flowers latter part of July. (Har.) fig 3 Meis.  
 Ins. abundant near London Can. (Saunders note).

Hab. U.S. West Ind. Brit. Nlm. (Meis) Can. (Saunders) Meis (F.G.)  
 (Can Ent 2 p 518)  
 Food plant prob Raspberries.



Send. de Po. Bot. Soc. Ind. Hist. XI. 398-80

Edwards Butterflies pt 1 pl 5.

*Argynnis Atlantis* Edwards. P. E. S. Pa. 1862. Meid. P. E. S. P. 2 p. 516. Edwards. P. O. Acad. Nat. Sc. Pa. 1862.Ins. pl.  $\frac{38}{11}$  Sanborns coll. from White Mts. N.H.Pupa suspended by tail to <sup>rails</sup> logs or boards  $\frac{11}{19}$  to  $\frac{10}{9}$  from Edwards fig. lying on the ground.

Ins. found early in June on the Catskills N.Y. (Edwards.)

&amp; common in Lower Canada. (Saunders.)

this sp. occupies the northern belt of the Atlantic slope (Edwards.)

Food plants, probably violets. Souder Am. Nat. Mag. 1869.

Hab. U.S. Brit. N. Am. (Meid.) Hudson bay N.Y. (Edwards.) N.H. (Sanborns) Canada (Can. Ent. 1. 4 Quebec " " 199

note " differs from *A. aphrodite* by its smaller size & duller color the broad black borders are confluent & the fore wings are longer & narrower. it is found in mountainous districts (Edwards.)









*Argynnis calippe* Bdu. Meis P&S N. 2457. Mor 7 Mar Sep 46. Edwards P&S P. 3 p 436.  
Edwards Butterflies Part 2. Pl. 6.

Ins. June the only species found in the Ins pl. I.  
vicinity of San Francisco Cal. only one fig 5 from Mr Edwards fig.  
brood annually. (M. Behr. Edwards butterflies p. 2)  
& pretty universally distributed through the state.

Hab Calif. Edwards. Vancouver Island. Brit Colum Lond. 2 1895

*Argynnis nekomeis* Edwards. pr A N S Pa 1862. Meis 2 p 577. Reakert P&S P. 6 p 136  
Edwards Butterflies p. 1. pl 44  
Mor 0.

Ins. from one sp. taken among the  
Butter root mtns Mon. ♀ yet unknown (Edw.)

Hab Rocky mtns Calif (Reakert)

Butter root mountains Montana (Edwards.)

Ins pl. I.  
8. from Mr Edwards fig.  
J.V. 8. 7. from Nelson. 18  
last Whales expedition

*Argynnis hesperis* Edwards P&S P. 2 p 555. Reakert P&S P. 6 p 139 Meis 0 Mor 0.  
first taken in Color. by Mr James Ridings 1864. Edwards butterflies p. 2  
pl 7

Ins not uncommon July Aug. in that region

Ins pl. I.  
6 & 8 from Mr Edwards fig

Hab Rocky mtns Color. (Reak) (Edwards)

*Argynnis coronis* Behr Edwards P&S N. 3 p 456. Meis 0. Mor C.

Hab Calif. not uncommon

*Argynnis montivaga* Doubled. Edwards P&S P. 3 p 456 Meis 0 Mor C

Hab Calif

*Argynnis rufescens* Behr Edwards P&S N. 3 p 456 Meis 0. Mor 0.

Hab Calif

*Argynnis adriasti* Bdu Edwards P&S P. 3 p 456 Meis P&S P. 2 p 516  
adriasti Meis

Hab Calif.

*Argynnis halcyone* N S Edwards butterflies Part 3. pl 9

Colorado. (Edwards)

Ins pl. VI.  
fig 4. from Edwards fig

*Argynnis nevadensis* W.S. Edwards. To Am Ent Soc 7/10

resembles *A. Hesperia* in markings of upper side &  
series of submarginal spots but is much smaller, the margin  
of the primaries convex of a pale color  
above & quite different beneath. (Edwards)

Hab Calif valleys of the Sierra }  
near Virginia city

♀ J. 21/6 *Am. Ent. Soc.*

described in the  
mountain ash

*Argynnis monticola* Behr. Edwards p. 65 P. 2 p. 436. V Edwards Butterflies P. 3 pl. 8.

is more alpine in habits than a *serena*

Hab Calif. Yosemite valley (Edwards)

Ins 9 pl. VI  
fig 7. fm Edwards fig

*Argynnis serena* Behr. Edwards P. 65 P. 2 p. 436. Weid p. 65 P. 2 p. 517.  
Mar 11 Mar 1900.

Hab Cal.

*Argynnis aglaja* Linn Reak P. 65 P. 2 p. 137. Weid P. 65 P. 2 p. 517.  
Augusto Mar. Cal. 7. Mar 1900.

Hab Rky Mts

*Argynnis Edwardia* Reak P. 65 P. 2 p. 137.  
~~Edwards~~ *Argynnis*

Hab Calif. Rky Mts. Washington D.C. Reak.

*Argynnis jurea* Hüb. Weid P. 65 P. 2 p. 517. Mar (40) 7. Mar 1900.  
de laffronica

Hab Can. (Summit) Arctic America Weid. Vancouver Island, Brit. Columb. Lord 2 835.

*Argynnis Behrensii* W. Edwards. Z. Am Ent Soc Proc. vol 2. p. 379.

*Behrensii* *Argynnis*

Hab Monticino Calif

*Argynnis* *ulo*. Behr P. Calif Acad nat Sc. 1862. Edwards butterflies Part 4.

mentioned in Record of Am. Ent. p. 14 at

Hab Calif. Behr in Edwards butterflies Part 4

Oregon. Yosemite valley. (common)

J. T. / 11. 12. fm Edwards

*Argynnis Helena*

fm coll of Mr Edwards

J. T.

*Melitaea* has nearly similar to *Argynnis* but the wings are subdenticulate, & the vena (or silver) on the underside of the secondaries of *Argynnis* is here replaced by yellow or violet broadly reflexuous. *How. Syn.* 30.

*Melitaea nycteis* (Goathead). *Saturnia*. 23 June Sep. 114

& *Calina* & *nat. his.* 26.

first found *Heteranthus devanensis*

L. June 14. *How.* 21. June 1. July 1.

& Aug.

*Melitaea chalcabon* Btt. *Edw. & B. Ent. Soc. Phila.* n. 223, 1862.  
*How.* Rky. Mtn. Cal. Oregon Nevada

feeds on *Scrophularia* chiefly but found also on *Mimulus*, *Calistegia*, *Clabium*, abundant just appearance. 20 inch in. *How.* & successive broods are hatched up to middle July. Insects very active & voracious. Fly away every other butterfly. which may mention new &



{ Melitaea Lab. Antennae with a short abrupt  
compress club. eyes naked fore wing elongate  
triangular head moderate med. 88

Melitaea

antennae with a short abrupt compressed  
club eyes naked fore wing elongate triangular  
head med. w. 88.

# Genus 13 Melitaea

peritarsus  
melitaeus

note "in consequence of y having hairy palpi according to Felder (nervus de subopteron)  
in nycteis. isomeria Pharos & others belong to the genus Ensisia" Meis. P.B.S.P. 2 525

Melitaea amica Doubled. - Lewis P.B.S.P. 1842.

Hab. Cal. Rky Mt. Kansas. Pack guide 238 Vancouver Island - Brit Colum (Lind 2, 335)

Melitaea nycteis. Edwards P.B.S.P. 1861. Meis P.B.S.P. 2 p 517. Mor (Doubled) 8  
Lucas. Meis. P.B.S.P. syn.  
None. of the previous list of Scudder syn.  
Scudder. Tr. Ent. Soc. Nat. Hist. XI 378. 80.  
Linn. Ann. Rf. 114 J. Cabret Nat. Hist. 156 p. 26.  
Mor Syn. 0

Ins. pl. 8. coll of Prof. Herrick  
XXV/2  
of Yale. n. Morris

Toos plant Plantain? Sunflower (Scudder Ann. 1864 p. 119)  
Helianthus divaricatus. Linn.

Melitaea feed upon different species of Plantain Pack 265

Melitaea aenone. Scud. P. Essex Inst. 1861. Meis P.B.S.P. 2 p 517. Mor 0.

Ins fm Labrador.

Ins pl 38  
fig 15. coll of Mr. Sautern

Hab US (Meis) Labrador (Sautern) Maine Meis. rare (Pack Guide 257)

Note "Aenone is nycteis of Doubled." (Linn. notes)

Melitaea carlota Reak?

Ins. pl. 9. as nycteis by McSweeney  
fig 1. as nycteis by McSweeney

Ins not uncommon in Illinois

Ins pl 38  
fig 15. Illin coll of Mr. Hatch.

Melitaea isomeria Meis P.B.S.P. 2. 517. Mor (Bede) 8. Mor Syn 50. B.S.P. pl 46  
Harris 288

Want Ins

Ins. found on flowers June July Aug May far pl. A  
fig 10. fm B.S.P.

Hab US (Meis) Sautern St. (Morris)  
Nova Scotia rare. Can Ent 2 157

Ins pl T. fm B.S.P. very poor fig. noted to be  
reled on. better in Harris

Melitaea chalcedona <sup>Doubled.</sup> Meis P.B.S.P. 2 517 Reakins P.B.S.P. 6 p 139. Mor 8. Mor Syn 0.  
chalcedon. Edwards P.B.S.P. 1 p 222. Lar. pl 108 fig 19. Edwards fig

food plants } Figwort } Gray 254 Monkey flower } G. 259  
Scrophularia } Mimulus }

Ins pl. H  
fig 8. coll of Meis. G.P.R.

Hab Calif (Mor) Rky Mtns Color calif. (Reak)  
Bractea brinnea } Gray. Lathum  
Calcegia }

Ins pl 25  
fig 3 coll of Dr. Morris.

Melitaea phaon not in any cat. can it be phaon.

Ins pl H  
fig 14 coll of Meis G.P.R.

Melitaea texana Edwards Pack guide 256  
Texan. Melitaea  
Hab. Texas.

*Melitaea phaton*. *intra* 23 Ann. Rep. N.Y.S. cabinet. 1863.  
 food *Cirsium glabra* Lintell  
*Baccharis curvata* Scribn.  
 " *Barberry* "  
*Aster* (Pack) *helianthemum dentatum*  
 & *Kalmia*. Pack.

*Melitaea phaton* "Larvae appear to feed only at night. I during the day collect in dense clusters in the corner of the box in which they live. They feed also on *Ipomoea* (*vernonia*) & a *solidago*." *Can Ent L.* p 26.

*Melitaea Batesii* (Pack)  
 Ender's Batesii Pack P.E.P. 5. p. 226 (desc) *Mid O* *Mar O*

Hab. Va. N.T. (Pack)

*Ins* *pl C*  
*fig 4* coll. of McEwen's

Its only eastern ally is *Thomas*. but it is much more nearly related to *Pulchella* (Bass). (*Prattensis* (Pack) of the west coast. (Pack.)

## *Melitaea*

*Ins.* sent by Dr. Chas. S. Mearns, U.S.A.  
 given to him by a Colonel Mearns, who has them given by an old discharged Soldier a settler in South California & gathered in the immediate neighborhood of his ranch.

*Ins* *pl C*  
*fig 1*

*Melitaea rubigena* Edwards Colorado

*I. pl S/14*

*Melitaea* *Ins* sent by Dr. <sup>Chas</sup> ~~Edwards~~ Mearns, U.S.A. 1866.

*Ins* *pl C*  
*fig 3*

*Melitaea* *Ins* sent by Dr. <sup>Chas</sup> ~~Edwards~~ Mearns, U.S.A. 1866.

*Ins* *pl C*  
*fig 7*

*Melitaea Thekla* Edwards letter.

*Melitaea marcia* H.S. Edwards. *N. Am Ent Soc.* 2 207.

formerly confounded with *M. Thomas* Edwards.

Hab. from N.Y. to Louisiana

*Melitaea Hoffmanni* Zehn.

Hab.

*I. N/10.*

*Melitaea phaeotus*

Weid p. 518. 2 p. 518.

Edwards. Can Ent. 1. 59. 60. 80. 102.

Mor. (Cram.) 8. Mor Syn. 50

Btl. pl. 47. Harv. 288.

Sinn. Am. Nat. Hist. vol. 1. 1869. p. 23

Ins pl. 22.  
fig. 6. Mr.*Baltimore* Tristellary.Lar found near Washington D.C. feeding upon the foliage  
of Arrow wood. (*Viburnum dentatum*) June 1stIns pl. 30  
fig. 6. Mr.

Lar "hybernates" through the winter &amp; may be found in early

spring feeding upon the foliage of Arrow. Harv. &amp; Arrow wood. Pack. Am. Nat. 1868 p. 248.

Pack. Am. Nat. 1868 p. 250

Pupa June 10th. suspended by tail. (Ma)

Insect appeared in from 6 to 10 days after the pupa was formed &amp; quite plentiful at times

near Washington D.C. taken also occasionally near London (Can) more common near

Ottawa Can. (Saunders note)

Food plants. Arrow-wood. (H.) Aster. Harv.

ons appear in low grounds in June (Ma) & Arrow wood. (Pack) *Chelone glabra* & will eat

Black currant. (Scudder Am. Nat. Aug 1869)

Iron weed. Solidago Can Ent 2 p. 36.

Hab U.S. Brit. N. Am. (Weid) Can. (Saunders) Ma. (H.)

run Man. (Har) (Barberry. Lawrence)

*Melitaea marcia* Edwards.

Weid p. 518. O. Mor C.

Ins pl. 35.  
fig. 6. Edwards authenticThis insect is distinct from *M. Tharos*. I have taken this type & am yet undecided about it (Edwards letter)

fig. 7. prob var. Edwards

Hab Md. H.

*Melitaea* ?

captured by Dr Palmer at St Thomas Virgin

Ins pl. 37.

&amp; resemble the following

Ins pl. 37. 8.

*Melitaea* ? *Arctia*Ins pl. 30  
fig. 4Ins pl. 30  
fig. 5 from the west.*Melitaea Tharos*.

Cram. (Mor cut)

Weid p. 518. 2 p. 518.

Mor S.

Mor Syn. 51.

Btl. pl. 47 ?

Coccy.

Harv. 288.

Selene

Tharos.

Ins pl. 30

fig. 9. coll. of W Edwards

*Pearl crescent* Tristellary Can. Nat.*Melitaea* (prob *Tharos*) Lar black & lying without a web on the under side of the leaves of*Actinomeris squarrosa*. (H. W. Edwards. Can Ent. 2 p. 36.)

Ins abundant about London. Can. (Saunders)

Hab U.S. British &amp; arctic Na. (Harv) Can. (Saunders) &amp; Can Ent. 2. p. 8 (July)

Common Ha Ha bay, Lacuna (Can Ent. 1. 11)

Nova Scotia (Can Ent. 2/157)

Can. comes Island, Brit. Colum. (Lord 2/355)

Food Plant plantain (Scudder Am. Nat. Aug 1869)

? *Actinomeris squarrosa* (Can Ent.)*Melitaea pulchella*

Weid p. 518. 2 p. 518

Mor C.

Tharos

pale yellow

somewhat beautiful?

Note "supposed to be a climataloid development of *Tharos*. (Weid)*Melitaea Packardii* Saunders. Pack. quite 256.*Packardii* *Melitaea*

Hab. Transvaal Can.

*Melitaea hilda* n.s. Scudder Sp. Boston Soc Nat Hist. 12/404  
 Ins. ? allies to *M. Amicia* (Scud.)

Hab Alaska (Scudder)

*Melitaea* ? (prob) *Palla* Boisid. Scudder Boston Soc Nat Hist 12/404

Hab Alaska Scudder

*Melitaea neta* n.s. Edwards To Am Ent Soc. Phil vol 2 p. 371.

Texas (coll of Mr Jas Ridgely)

*Melitaea Arachne* n.s. Edwards To Am Ent Soc. Phil vol 2 p. 372

Colorado coll of Mr Reakirt  
 closely allies to *M. minuta* Edwards. Portland Nat Soc Phil 1861  
 Unduly prove to be a female of that species. Edwards

*Melitaea thula* n.s. Edwards.

Sp fm Dr C Smart. South Calif. Ins. pt. 3/4

*Melitaea*

Rehr.

Sp fm Dr C Smart South Calif. Ins. pt. 3/9  
 one of Pichers Sp. Edwards.

*Melitaea canace*. Edwards letter

Sp fm Dr C. Smart South Calif. Ins. pt. 12/12

① *Melitaea harrisii*

2 known. L black above with orange beneath a faint yellow stripe  
 frequent dangerous. food plants *Astragalus helianthoides*, Hull  
 Can Ent. 2. 1893.







*J. Phycodes canillus*  
(*Melalacca. aff.*)

*Exuv.*

*Sp. pm. Mu. Exuv. ant.*

*J.  $\frac{88}{6}$*

*Hab. Colorado.*



*Grapta* club of antenna not flattened. primaries excised, angular. secondaries with a  
 pale setaceous or golden mark like the letter 1 or c Mey Syn. XIX  
 2. 3<sup>d</sup>. 4<sup>th</sup> abdominal segment, armed with spines set around with tubercles of delicate bumpy

(Yparriz engraved)  
on woodcut

Genus 19. Grapta

*Grapta Fabricii* Edwards. Tr. CES. 3/1 Edwards.

golden la.

*Grapta C aurum*. Edwards letter in which he makes two species of  
"Caucasian Graper" *C aurum* & *C interrogatoris* Tr. Am Ent Soc. 3/1  
Tab. Albion 8 pl 11. 13. 14. text

*interrogatoris* Godt. Har. Ins. Mus. pl. Lintner Mar 1851 fig 1. Md.  
Larva found feeding on hops. Md. July.  
fig 5. Md. Edwards authority

Food plant Hops

Hab Md. (H.)

note This in Meidinger's list is a sign of *C interrogatoris* in a note he says "there are  
2 varieties" Tr. Meidinger P.S.R. 2 p. 525.

comma

*Grapta comma*. Har. Vieille p. E.S.R. Mor 8. Mor Lyn 54 Harr. 300 pl 4/fig 1.  
Varied.

"butterfly emerges after 12 days. first out 12<sup>th</sup> March  
& although slightly worn it had evidently been drawn  
out of its winter quarters, first brood, none probably  
from Elm 2d brood from hops 25 Aug (Lintner P.S.R. 3 p 56)  
Lar. pl 92  
fig 17 from sp in alcohol. Edwards.  
fig 25  
fig 218 half size 22 & full size  
from Edwards sketch

Early butterfly May 7 pm Chrysalis. mid July & first Sep (Man) Ins pl. 8  
fig 5 from Harris.

Food plants Currant Elm. Hawth Honey-suckle Willow

& prob. Gooseberry.

Hop. Nettle Lintner P.S.R. 4 p 152 Ins pl. 0  
fig 10. coll. of M Edwards.  
Hop Elm. (Nettle broad leaved. Edwards) Pack guide 260

note "very similar to *Grapta C. album*. (Mor)  
& compare with faunus also

*Grapta oncas*. N.S. p. Edwards Tr. Am Ent Soc Phil vol 2 p. 373.  
? of *C. album*. Dr. Behn Cal Acad Nat. 1864. No IV.  
the form of *Taurus* & underside of Progne.

Hab Calif. 1<sup>st</sup> Behn

said to feed on Urtica. Nettle.

*Grapta Satyrus*. Md. Edwards Tr. Am. Ent. Soc. Phil vol 2 p 374

form *Vicia* of comma.

Hab Colorado Rky Mtns. (coll. of Mr Reakitt.)

*Grapta umbrosa*. Lintner Tr. Am Ent Soc 7 Phil vol 2 p. 313. 1869

Edwards in Tr. Ent Soc 3 p. 5 mentions (Food plant. Hop.)

*umbrosa* of Lintner as a synonym of *C interrogatoris* Fab. see p. 19  
Hab NY. (Lintner).

*Grapha Lephyrus* Ws. Edwards. Tr Am Ent Soc. 3/16.

{<sup>Hab.</sup> Virginia city Colorado } Ins sent by Dr Chas Smith. South Calif.  
{Fort Simpson. Edwards}

Ins fig 5.

Sp. nearest *Gracilis* but is paler above & nearly uncolored beneath & on the secondaries has no submarginal black band with green lunules. (Edwards)

*Grapha silenus*: Ws. Edwards. Tr Am Ent Soc. 3/15.

Hab Oregon

This species belongs to the same group with *Progn. Gracilis* & *Lephyrus* but is larger than either duller colored, heavily spotted with black beneath nearly black. (Edwards)

*Grapha marsyas* Ws. Edwards. Tr Am Ent Soc. 3/15.

The form of *Comma*. much smaller primaries scarcely falcated. much excised on secondaries a long very broad tail posterior to which is a deep incision & a prominent dentation anal angle produced. (Edwards)

Hab Calif.

*Grapha dryas*. Ws. Edwards. Tr Am Ent Soc. 3/17

Alled to *Comma* especially in markings of under surface of male primaries as falcated less incised. Species between *Comma* & *interrogatorius* nearest *Comma* however

Hab  
Coalburg W.V.



*Taenius* with name *Grapta faunus* Heid 1864<sup>st</sup>. 2 p 518.  
 comma. Mor. 8. Mor Syn 54<sup>th</sup>. (?) *Grapta* C. Album. Fitch to N.Y.S. Ag. Soc. 1856 vol 16 p 1832  
 White comma. or Orange Comma. Can Nat. Ins pt 38  
 Fig 12 Coll of Mr Sanborn.

Lar. Aug.

Pupa. state lasts about 16 days, some pupae hibernate under logs & in sheltered places

" Chrysalis. June 13<sup>th</sup> to 20<sup>th</sup>" (Lentner NY)

Ins. May 1<sup>st</sup> brood. 2<sup>nd</sup> brood Sep. Some of the perfect insects probably hibernate

Ins " emerges from the Chrysalis after 16 or 13 days, the butterfly probably hibernates as worn & faded specimens were taken early in May (Lentner PESP 3 p 58) has been taken near Quebec. Can. (Saunders notes)

Food plants Elm Nettle (Scudder Am Nat 1869 Aug)

" " Wild Gooseberry, Wild Currant (Lentner PESP 3 p 58)

See also food of *G. Comma*.

Hab. U.S. Brit N Am. (Heid) W. (Lentner) Mass. (Scudder) Can. Saunders. { Alaska Scudder  
 7<sup>th</sup> Brit Soc Nat Hist  
 12/10/5.

\* Note " Harris thinks *G. Comma* of this country is different from the European *C. album* (see Mor Syn p. 530.)

" " mistaken by most authors for the European *C. album*. (Heid PESP 2 p 526)

gracile

*Grapta gracilis* nsp. Scudder Pro Essex Inst. Heid 0 Mor 0.

Ins pt 38

Fig 11. coll of Mr Sanborn.

Insect. is distinguished from *G. faunus* by smaller size & wanting all the green scales & spots, which characterize its congeners, as well as the dusky fulvous shades which occur on both wings beneath in *G. faunus*. (Grote Annual Lye Nat Hist NY vol 8. 1867)

Hab Atlantic district & Mt Washington W.H. (Sanborn)

described in H. Scudder's first list as  
 a heavy banked form of *C. argentum*.  
 Proc. Biol Soc Nat Hist XI. 374.

Food plants Nettle Umbrosia Elm Scudder  
 Can nat. Aug 1869

*Grapta interrogationis* Fab. Godt. Fr Am Ent 3/1 (Edw.) Harris text P Q

*Grapta interrogationis* Heid PESP 2 p 518. Mor (Godt) 8 Mor Syn. 53. Hur 298.

varieties.

*Grapta caureum* B&B plate 518, text 2 1

SP. pt 1  
 Fig 10. Elm NY

" - umbrosa Lentner & W. & S. 1869. P Q

American comma or semicolon L&A & Har.

Ins pt 33  
 Fig 6. Md.

Lar. Early brood June July. 2<sup>nd</sup> brood Aug (Har) (July on hop Md)

Pup suspend themselves by the tails under stems leaves & rails & they remain in the pupa state 12 to 14 days

Ins appears June. 2<sup>nd</sup> brood Aug (Man) June (Md) " it hibernates all

winter in sheltered places then comes forth in spring frequenting swamps & oak woods " Young also in Canada (Saunders) & prob passes the winter in the imago state (Saunders Can Ent. 1. 77)

Hab. U.S. Brit. North Am (Heid) Md. B.C. (Fg) Can (Saunders) (Can Ent 2 p 8) & 1. 77.

(Color Rky Atlas (Reckert PESP 6 p 163)

nova Scotiæ rary  
 Can Ent 2. 137

Food plants Elm Lime Hop Sugar berry. Mahoe. (Va)

Parasite *Stenomolus variator* (black color) Nettle Umbrosia Basswood (Scudder Am nat. Aug 1869)

Note " There are two varieties 3<sup>rd</sup> plate represents the one with light colored wings whilst others require the dark variety (Heid PESP 2 p 526)

*Vanessa* (*Grapta*) *progen*

*Spinosa* currant caterpillar. n. vs. Barou.

1st Rep. nat. Hist. 1871. 57.

♂ seen on top of Currant-

*Grapta* *progen* Gram.

*Spinosa* currant caterpillar

Saunders Rep. fruit growers

Am. Entom. 1871. 36.

Goodberry, White & Cult. currant

prob 2 broods in a season in Can

*Grapta* L. on Elm. 196. Aug

L. 106  
Pg 27

109

*Grapta* L. sent by Mr Edwards.

LPS. 106  
Pg 29.

*progne* (Myth name). *Grapta progne*. Hb. Meid PESP. 2 p. 518. Fitch L. W4Sag Soc. 1836 vol 16 p. 428

" *G. argenteum* \$ sr. Kirby  
*Vanessa progne* Morr (exam) 8: Mor Syn 56. 1/2 1/2 pl 50. Har. p. 301.

*Progne* butterfly (Fitch)

Lar June July (Mor) & lathes past June.

In pl 36

Pup. suspended by tail & remains in pupa state

1/2 7: coll. of J. Morris

about 16 days

In " belonged to hibernates in Canada specimens being taken none or less beaten & injured in the middle of March & rather common in Canada (Saunders notes as appears Aug. (Mor)

Hab. Brit N.A. West Ind. (Meid) Food plants Currant Elm.

North Sh. (Mor) Can. (Saunders) " " {Mid goosberry blackberry Probably

Rky mtns Color (Reakitt PESP 6 p. 143.

{H. sheysuckel. (Saunders Am Nat. Aug 1869)

W. (Fitch) Mas (Har) Can July (Can Ent 2 p. 8)

Mid goosberry (Can Nat. p. 257)

*Vanessa*. But same as *Grapta* hibernates midwinter. Lar. exiles, after hibernates. Pup. very heavy. (Mor 1836)

prop name.

June 20 *Vanessa*.

{Tab. antennae abruptly clubbed eyes very

smaller. prolegs angular. (Mid 37)

*Vanessa antiopea*.

Meid PESP. 2 p. 519. Mor (Syn) 8: Mor Syn. 57. Harr. 296.

Linnaeus is a var. descr. as a new sp. Fitch L. W4Sag Soc. 1836 vol 16 p. 488

Lar. pl 1

Traveller - mantle or mourning cloak of the Germans

1/2 12: Ind. Willow

White bordered butterfly or *Antiopea*.

Pup. 21

1/2 4: Ind.

Camdenwell beauty of England. (Can Nat.)

1/2 2: Ind. June 1/2 20: Ind.

Lar found in Elm (Mid) June probably a second brood in Aug.

Pupa June (Mor) & Lar. in pupa state about 10 to 12 days.

In appears in 10 to 12 days. Harris states that they pass through all their stages. (to butterfly) before winter

" Butterfly frequently hibernates Has been seen abroad by 25 March (184) there are 3 annual broods, the first from Chrysalides of the fall brood appear in May. the second brood the latter part of July, the third brood the butterfly appears 1st October. a portion of the late brood of Chrysalides disclose their butterfly in autumn, the rest remain until spring as Chrysalides. The butterfly when it first comes out frequently feigns death" (Linnaeus PESP. 3 p. 60)

" Common Canada. the imago or perfect insect hibernates" (Saunders notes)

" Butterfly hibernates appearing before the snow is off the ground" (Pack Guide 233)

Harris also states that the butterfly passes the winter in some sheltered place in a partially torpid state & may be seen opening its wings & shutting again in the beginning of March.

Food plants Elm. white birch. poplar Willow

Silver poplar (Vanort)

Balm of Gilead (Saunders Am Nat. 1869 Aug)

I. must be plentiful in Can. as about 2000 sp. were seen flying about in a Grove of 10 m. on 31 Aug.

C.T.S.B. Can Ent 2 p. 8

2 black dots minutely with white 6 or 7 spots brown on each segment head shining orangey dark brown

1/2 4: 330. S. d. k. brown. margin. breast half yellow-orange. (Van and Mid)

Hab. U.S. Brit N.Am. Mex. (Meid) Canada (Saunders) I Can Nat. 1/2 7: Ind. 20: June

Hudsons bay to Mex. Europe. (Mor) Ma. common (186) Alaska. (In May 20 Coll. Bor)

Meid notes Can Ent 2. 137 Vancouver Island. Brit Colum. Lond. 2. 335

Calif Am Nat VII. 1855

Wickson 30 May. Coll. Am Nat. 1. 297

In prob imported from Europe (Pack guide 258)

" *V. antiopea* remarkable (in Europe) for their periodical or irregular appearance" West 2. 334

*Banessa californica* Bdv. Pack Guide P. 259

Bdv. A.S.E.F. 1850. Meid PESP 2. 519.

Californian *Vanessa*.

Morr Cat. 8. Mor Syn 58.

In pl 0  
1/2 12: coll. of W Edwards.

Hab Calif. (Mor Cat)

(21)

*Vanessa polyphlores*. Linx

mentioned in *Naturalist in Vancouver Island*  
of British Columbia. Lond. Vol 2, 335



write I

Scudder Proc. Ent Soc Nat Hist. XI. 379. 80

*Vanessa Jabum*. Heid P&S.P. 2 p 579. Mor Syn 56. B&L Pl. 50. Har 299.

White Butterfly (Harris) Compton-Lortue (Can nat 46)

"I'm probably hibernates & is occasionally found in the winter season where it had taken shelter; the first warm days of March draw it from its retreat in Sept? a second brood appears a portion of which pass the winter in the chrysalis state (Lentner N.Y. P&S.P. 3 p 59). This butterfly is usually common in Canada, some years it is rather scarce, it is seen on the wing in the middle of March." (Saunders notes)

In pl 37  
fig 2, coll of  
Mr Morris

Food plants Hop Elm Willow? (Scudder Am Nat Aug 1869)

Cal. U.S. Can. (Heid) North St. (Mor Cat) West (Mor Syn) N.H. Man. (Har)  
July Can (Can Ent 2 p 8) Nova Scotia rare Can Ent 2. 157

Millet

*Vanessa milbertii* Scudder: P. Ent Soc Nat Hist. XI. 379. 80  
Heid P&S.P. 2 p 579. Mor (Encyc) 8. Mor Syn. 56. {Har 302  
furcillata Say pl 27. B&L pl 50. {militate

"*Vanessa*." In pl 81

(Can Ent 1 p 76.)

Lar. description (P&S.P. 2 p 28.) & feeds on Nettle (Saunders)

Larvae live together on the common nettle (Har)

fig 3. coll of Mr Morris

I'm "probably 2 annual bobots 1st. March 18<sup>th</sup> (Lentner P&S.P. 3 p 62)  
it is destroyed by a parasitical Larva which after killing the  
Caterpillars spin themselves in small white cocoons placed with  
perfect regularity side by side forming a small bundle usually  
round in form made up from 20 to 60 cocoons the whole enveloped  
in a cottony substance, these cocoons are in every instance  
underneath the larvae (Lentner P&S.P. 3 p 62) usually  
common in Canada. (Saunders notes) Lar nearly full grown July 26. or

{ Spent passes the winter in the imago  
state in Can. (Saunders Can Ent 1. 76)

Food Plants Nettle (Saunders)

{ Nettle. Saunders  
Rack guide  
209

Cal. U.S. Brit N.Am. (Heid) North St. (Mor) Pa Illin Rky Mtns (Reasins P&S.P. 6 p 143) Can. (Saunders)  
Man (Har) (Can (Can Ent 1. 76.) Ha Ha bay (Can Ent 1. 41) Nova Scotia rare. Can July. Can Ent 2. 157

Lentner

*Vanessa Lintrierii* Fitch. 184 (Lintrierii is a var of *Antiope* Heid P&S.P. 2 p 19.)

Lintrierii *Vanessa*.

Mon 8. Mor Syn. 58

See *Antiope* p. 30.

Food plant Willow

repare a pinning book.

*Linus 21. Pyraemius*

Scudder & Hentz differs from *Vanessa* in  
having wings on angustis palei by hairy

Scudder & Hentz Nat Hist. XI. 378. 80  
*Pyraemius atlantica* Heid P&S.P. 2 p 579. Mor (Lins) 8. Mor Syn 58.  
Cynthia " - Harris 294. Lar pl 29

fig 1. from an English work.

Black Admiral of Europe, or red Admirable In pl 33  
egg " separates May. (Med) fig 1. Ma.  
Lar " almost constantly enveloped between leaves which are drawn together  
by a silken thread. (Saunders)

Larva state continues about 16 days

It is plentiful in Ind. & not uncommon in Canada. (Saunders) double brooded in Mass  
the first appearing in May & then in July Aug & Sep? (Rack guide 261)

Food plants *Serratula*? Nettle. (Saunders) *Ambrosia hofe* (Scudder Am Nat Aug 1869)

Cal. U.S. Brit N.Am. Mex. (Heid) Europe (Morris) Can (Saunders) Md St.  
July Can (Can Ent 2 p 8.) Cal. Am Nat. 114. 555

Nova Scotia rare. Can Ent 2 157





Scudder Ps. Port San. Nat Hist XI 374-80

*Pyraeas cardui* Meid PESP. 2 p. 519. Mor (Linn) 8. Mor Syn 59. Can Ent. 1. 93.  
*Cynthia* " Har 291

Thistle butterfly (Har) Painted Lady (Englana)

SP. pl. 21.  
 fig 3 Ma. June

Lar found June (Ma) feeding on thistles. solitary. Ins. pl. 33 Ma.  
 Pup. suspended by the tail to a leaf or under leaves &c. last, about 12 days.  
 Pupa appears a few days after the pupa is formed in June. It is "common  
 in Canada (Saunders notes) Ins. May 20th July. Ins. May 20th July (Man)

\* Food plants. Burdock Thistle Sunflower

Hollyhock Nettle. 3 Year thistle (onion lanceolatus)  
 Har (Cotton thistle) Onagorodon (acanthum)

Hab U.S. Brit. N. Am. Mex. (Meid) Can (Saunders) Mex (Linn) 4 quarters of the globe (Man)  
 West Indies Cent. Amer. May (Har) July Can (Can Ent. 2 p. 8) Calcutta (Can Ent. 1. 12)  
 Vancouver Island. Brit. Colum. Lord 2. 335 Nova Scotia. Can Ent. 2 157 Calif. Am Nat. VII. 185

\* Doublebrooded in Mass. the first appearing May. Then in July Aug. Sept. (Pack guide 261)

" *Cynthia cardui* (Europe) remarkable for their periodical or irregular appearance West 2. 331  
 an irregular swarm, observed in the Canton de Band in 1828 forming a column from 10 to 15 feet broad. Invasions  
 the country from north to south. West 2. 185

*Pyraeas huntera* (Cram) Meid PESP. 2 p. 519. Mor (Smith) 8 Mor Syn 60  
*Cynthia* " Har 292 SFA pl. 9. BSA pl. 88. Lar Coc. pl. 9. fig 4 Ma. Sep.

Thunter butterfly Har.

American painted Lady (BSA)

Lar described by Saunders Can Ent. 1. p. 106 Ins. pl. 33 2nd June.  
 Lar. folds & spins the leaves together. (C. Cudweed or everlasting. (Ma) July 9 (Sep)  
 Pup. suspended by tail. Formed in July. (Ma)

Ins. emerges in about 10 days & there are probably 2 or more broods  
 in one year. Common in Md. & not common in Canada (Saunders notes)  
 it frequents damp places, seeking moisture. doublebrooded in Mass. the  
 first appearing in May & then in July Aug. Sept. (Pack Guide 261)

Food plants Burdock Balsam (Scudder Am Nat. Aug 1869)  
 Thistle (Linn) Cudweed or everlasting &c.

Hab U.S. Mex. Brit. N. Am. (Meid) Southern St. (Mor) Gnaphalione polycephalum. Can Ent. 1. 105  
 Man (Har) Can July. (Can Ent. 2 p. 8) Nova Scotia Can Ent. 2 157

*Pyraeas carye* Hub. Meid PESP. 2 p. 519. Ins. pl. 0.  
 " carye Hub Mor cat. 8. Mor Syn 0. fig 14. coll. of W. Edwards.

Hab Calif. Brazil (Mor cat.)

## Genus 22. Junonia

*Junonia cænia* Meid PESP. 2 p. 519. Scudder Ps. Port San. Nat Hist XI. 378-80  
*Cynthia* - *Larvinia* Har 293. Mor (BSA) 8 Mor Syn 61 BSA pl. 49.

" *anythia* SFA pl. 8. SP. pl. 2.  
 genoveva & evanice. Ins. pl. 33 Ma.  
 fig 10 Ma.

American Peacock SFA

Lar figured was found on oak where it had most probably  
 hibernated before changing into a pupa.

Pupa suspended by tail. Oct.

Insect rather common (Ma.) & some were taken at Port Stanley (Can  
 on the shore of Lake Erie (Saunders notes) Frequently damp places.  
 4. 19. Aug. Har (Man)

Food plants.oad flax. *Linaria canadensis* Gray. 284  
*Linaria* (Scudder Am Nat Aug 1869.)

? Taken on Oct. 19.  
 Hab U.S. West Ind. Mex. (Meid) South St. (Mor) Ma (Linn) Can (Saunders). Calif (Pack guide 261)  
 Man. (Har)

Note "Genoveva & Larvinia are probably only climatical developments of  
 the same insect (Meid)



Genus 23 *Cynthia* unrepresented  
 Genus 24 *Anartia*

drawn }  
 to suspend }

*Anartia Satrophoe* Hbst. *Neia* P&S.P. 2 p. 519. Mor (Hüb) 9. Mor Syn 62.

In pt 37 coll. of  
 fig 5<sup>th</sup> Morris

Hab U.S. West Ind. Cent. Am. (Hüb) Texas (Mor) Border. America N. Mex. I. Palmer.

Genus 25 *Cybele* 26 *Mysoecia* 27 *Epiphela* Cent. Am. Mex. 9<sup>c</sup>.

Genus 28 *Ectonia* 29. *Pelia* 30 *Hecmatara*, unrepresented

Genus 31 *Eubagis* 32 *Callicore* Cent. Am. Mex. 9<sup>c</sup>.

Genus 33 *Persama* unrepresented.

Genus 34 *Catagramma* Cent. Am. Mex.

Genus 35 *Callixena* unrepresented.

Genus 36 *Gynecia* 37 *Callianira* 38 *Pyrrhogyra* 39 *Lucinia* West Ind. Mex. 9<sup>c</sup>.

Genus 40 *Eteona* unrepresented.

Genus 41. *Morpheis* 42. *Epicalia* Mex.

Genus 43 *Callithea* 44 *Omnosia* 45 *Cyrestis* unrepresented.

(Hüb)  
*Simulodes ceresia* Hüb  
 Edw. & P. B.S.P. 1 p. 224.  
 Hab Texas

Genus 46 *Simulodes* 47. *Victorena* Mex. cent. Am. 9<sup>c</sup>

Genus 48 *Mueetra* 49 *Prathoe* 50. *Mynes* 51. *Saera* 52 *Nertis* 53. *Althyma* all  
 unrepresented

*Limnitis* (Myth. name)

Genus 54 *Limnitis*

*Limnitis*, Sp. & *aulonae* gradually elated  
 nymphalids later } eye pubescent - fore wings  
 rounded at the end  
 Westwood 87

*arthemis* *Itano*

*Limnitis arthemis* Heid. P&S.P. 2 p. 532. Mor Syn 65. B.S.P. 56 Say pt 28.  
*Nymphalis* Mor (Gruy) 9. Har. 284 pt. 1 fig 7.

Bordered purple Can nat

In pt 31  
 Lar. found about mid June on Thorn (Saunders Can) fig 5. Mor Coll.  
 Pupae state continues about 9 days  
 In June 94. doubt brooded in white & Alouirack Mtn late June late May Common  
 Rock Guide 262

Food plant Elm (can nat) Thorn (Saunders Can Nat Aug 1869.)  
 prob Balsam poplar }  
 Populus balsamifera } Lintner P&S.P. 3 p. 63.

L mottled white & greyish green 2 yellow horns on 2<sup>d</sup> segment  
 & 2 prominent on 3<sup>rd</sup>

Hab U.S. Brit N. Am. (Heid) Rky Mtns Color (Reak P&S.P. 6 p. 143.) N.Y. Md. Ill.  
 Can July (Can Nat 28) Northern St. (Mor) White Mtn & Alouirack Mtn (Reak)  
 rare May but more common in hilly parts of N.H. (Har) Nova Scotia Can Jul 2. 187



*Limonia discipulus* Riley 3<sup>d</sup> Rep. 158

Egg usually deposited singly near tip of leaf.  
Lar. casts its old skin 3 times & devours the larvae of the autumnal brood  
hibernates in cases formed of leaf rolled up & fastened together with silk  
threads

- Parasite a Tachinid fly, unknown to Riley in Larva  
 " { in egg. 2 or 6. four wings. Body's lvs 0.0.2 long  
     { provisionally named *Dichogramma minuta*.  
 " { *Microgaster* (*Limonioides*) *Limonioides* n.s.  
     { commonly infests the 2<sup>d</sup> brood of caterpillars  
     { Riley it during the second period also bred  
     { from *Gelechia gallae solidaginis* Riley





*Aganisthus*primaries not dentate sub/alaeform no ocelli  
(prob not found in U.S.)

Mor Syn XIX

*Agnathina*primaries slightly dentate secondaries with ocelli Mor Syn  
Larvae resemble *Salix* but live on trees & not like *Salix* on  
ground & grasses. Mor Syn. 68

19345. *unsula*  
small bear

*Limonitis unsula* Meid PESP. 2 p 522. Mor (Lab) 9 Mor Syn 5p 1944 pl 53.  
" *Ephestion* Har. 263 SVA pl 10 1344 pl 53.

*Nymphalis unsula*. Am Ent 1. 192.

Black & blue Admirable.

Lar pup. pl A  
fig 12. fm 1344 & pl A  
77 SVA.

Lar pl 91

fig 22. Mellas. Ind #  
Ins pl 33

Lar taken feeding on Willow Md.

Pupa suspended by the tail June 9<sup>th</sup> the second brood  
are said to hibernate as pupae

Ins comes out the following spring "June 18<sup>th</sup> Valis taken as 16. April (Geo)

& "in Canada June 20<sup>th</sup> to 25<sup>th</sup> (Saunders notes) Ins June Miss. (Pack quote 262)

Ins. rare in comparison with *Disippus*. Am Ent 1. 191 " June & Sep. Mass. (Harris)

Food plants Cherry, Highberry, squaw whorlberry  
Oak (scrub) Willow

" " Apple, gooseberry, Hawthorn, Hoonbearn  
{ Plum, quince, Vaccinium Scudder Am Nat Aug 1889

Har. Mid South "S" (Mor) Ma (S) Can Saunders New York Rhode Id. common Am Ent 2. 176

It this figure of Larvae was doubted by Lintner but was bred by myself fm Willow Ma (S)

Genus 55 *Heterochroa*, 56 *Madema* Mex. West ind &.

Genus 57 *Godartia* 58 *Romuloecoma*, 59 *Euryphene* 60 *Atarica* 61 *Harna*

" 62 *Adolias*, 63 *Enispe* 64 *Euripus* 65 *Herona* 66 *Symphacdra* 67 *Menetis* } unrepresented

" 68 *Imyria* 69 *Agras* 70. *Drepana* Central America Mex

" 71 *Pantora* unrepresented.

Genus 72 *Aganisthos*

(ion constellation) *Aganisthos orion*. (Cram) Meid PESP. 2 p 523 Mor (1344) 9. Mor Syn 7p 1344 pl 52

" *danae*

Ins very large upper wings scalloped brown shaded  
with black towards edges.

I. pl 37  
fig 7. fm 1344 fig

cent am.

Hab. U.S. Mex West Ind. (Meid) Southern States (Mor)

" note doubtful as to its being found in the U.S"

(a wing false orpe tail)

Genus 73 *Apatura*

apatura Tab. antennae gradually clubbed  
club nearly straight. eyes naked labial palpi  
sensitive hind wings scalloped. West. 87

as occidentalis }  
var on hackberry.

*Apatura celtis* Meid PESP. 2 p 523. Mor (1344) 9. Mor Syn 68.

L.P. pl A  
fig 17 1344 fig

Ins pl 26  
fig 9. 1344 fig

Food plant Sugar on Hackberry

Hab Southern St. (Mor)

*Paphia*. Doubleday. *Pamias fore margini arcuati anguli acuti* Tail prominent  
color coppery, Mor Syn. XIX

*Paphia glycerium*. Amer. Eg. No. 4. Feb. 1870 p. 121. moabey. Riley 3<sup>rd</sup> Rep. 125  
Goat weed butterfly Riley

Larva rolls up the leaves of Goat weed (*Croton capitatum*) in Sept. by means of  
silken threads during the hot days it remains concealed in the leaf. Towards  
evening comes out to feed sometimes hammers out its own rolled up leaf when this  
is the case it rolls up a new leaf. Larva. Skin green but its general color is  
dusky white very much the same peculiar whitish glaucous green color as the plant  
upon which it feeds. it attains its full size about 3 weeks from the egg.  
Pupa suspended by the tail is of a light green color speckled & banded with dark gray.

*Paphia glycerium* Doubleday. Riley 3<sup>rd</sup> Rep. 1873. 145.

Egg wholly fastened singly (though sometimes to  
the number of 5 or 6) first firmly to the under side  
of a leaf. ~~which~~ which hatches out in 4 to 5 days  
& when young inhabits no leaf case as does  
the larvae. ~~when~~ after the first or second moult  
it undergoes 3 moults. Maturing within three weeks  
pupa suspended 2 broods yearly. Vermin hybernate  
food plants Goat weed.

*Croton capitatum* and *monanthogynum* ~~the~~  
parasites. *Hippodamia maculata*. eggs & young larvae

" *L. Syphus delinoyi* eggs

" *I. Annaphila pedipennis* (Walsh) delinoyi eggs

" *L. Tachina archipusora*. - larvae & chrysalis



Thickness of a goose quill thicker in the middle parts than  
 & lighter green with yellow stripes. head white & yellow (broadly) fringed  
 2, 2, 3, 0. 4 wings blackish brown on basal half of fore part orange  
 beyond with one 2 rows of small olive yellow spots, more  
 broad edging, yellowish orange band.

*Apatura clyton* (Btl) Heia PESP. 2 p 523. Mor (Btl) 9 Mor Syn 88 Btl pl 56

*Clyton Butterfly* Fitch In MS Ag Soc. 1856. vol 16 p. 380 Lar pup. pl A. 18. Btl. fig

Pupa suspended head downwards Ins pl 36. Btl. fig.

new met with by Fitch in. MS Food plants Cherry Plum (Btl)  
 at Southern St.

*Apatura alicia* Edwards Butterflies pt. 2. pl 1

Ins 8 pl I  
 fig 3. Edwards fig

I. much larger than clyton with spots & ocelli comparatively larger (Edwards)

Hab. N Orleans. (Edwards)

Genus 74 *Pycnia*. 75. *Charaxes*. 76. *Philegnoma* unrepresented.

Genus 77 *Megistanis* 78 *Proterogenius* 79 *Lyppna* 80 *Cymalogramma* Cent Am Mex.

Genus 81 *Paphia*

*Paphia glycerium* Heia PESP. 2 p 524 Mor Syn. 67. (Um. Ent. 2. p 121. Last. V. monbeity  
 nymphalis. Mor (Doubled) 9. Lar pup. pl 101. Ins. pl 30. Bailey 22. Rep. p 135

Ins. several specimens were sent in a coll from Texas. (H)

Food plant Goat Weed *Crotalaria capitatum* (Um. Ent.)  
 Hab. US West Ind. Mex. (Meia) Far west (Mor) Texas Ill (Mor Syn) Tucuman. (L. A. Schott)  
 Missouri Tex. Illen Perhaps in other South western States. (Um. Ent.)

Genus 82. *Siderone* Cent Am Mex 89

Genus 83. *Bia* 84 *Heteropsis* 85 *Callima* 86 *Amathusia* 87 *Leucidia* 88 *Ascophora* unrepresented

Family 8. *Morphio* 10 genera. Mexico Cent Am or unrepresented.

Family 9. *Basolis* 1 genus unrepresented

Family 10. *Satyris*

Genus 1. *Nictys* 2. *Corades* unrepresented.

Genus 3. *Taygetis*. 4. *Tromophila* Cent Am Mex.



*Lehis* B. dv.

body rather small. legs large. secondaries generally angulated in the middle  
with a row of large ocelli eyes prominent hairy Anten. slender club slender with  
short joints. Wing Syn. 78

Genus 5 Delius

Lebis?

*Delius portlandia* Mid pESP 2 p 526 Mor 10. Mor Syn 79. 139L pt 58S. *Andromacha*. 1884*Salpinx Portlandia* Saunders Br Bot Soc Nat Hist. XI. 380 in 1884 p 111*Andromacha* Pearly eye 1884or *Portland Delius*Ins pt 37  
139L fig  
1884 p 111  
Ins pt 37  
139L fig  
1884 p 111Ins. taken in Md. " rare Canada but taken  
near London Can. (Saunders notes)Ins. large wings somewhat scalloped  
Glossy eyes like spots on upper  
wings 7. 5. spots are under wings

Food plant Grasses.

" "

Sedges. Saunders Am Nat Aug 1869.

Hab U.S. Can. (Med)

Northern St. (Mor) Geo (Mor Syn.) Mid (H) Can (Saunders)

(rare) Nova Scotia Can Ent 2. 157

Genus 6 Cylio 7 Lophassa. 8 Gnophodes unrepresentedGenus 9. Haetera. Cent Am. Med Ind.Genus 10 Cerois. 11 Coelites 12 Orinoma 13 Neonina unrepresented.Genus 14 Sisiphone Mex.Genus 15 Oressinoma unrepresented.Genus 16. Euptychia Cent Am Med Ind.

*Neonympha* Hub. body small hairy wings large not diaphanous uniformly colored above, more or less oscillated & trigone especially beneath. Antennae very short acuminate with white. Clab robust elongate. Tibial spurs distinct claws much curved, entire slender V. Mor. Syn. 73.

Larva elongate thickest in the middle longitudinally striate Tail bifid

Pup. short thick head case rather narrow is  $\frac{1}{4}$  obtuse. M

*Neonympha erythraea* Fab.

Ers. 10. 12. June. gen. but 1<sup>st</sup> June 1870 frequenting sunny openings found often in partially cleared woods & easily recognis-  
ed by their peculiar pump-like flight. The males generally appear  
first  
Eggs deposited singly fastened on blades of grass from mid to last June  
Hatches in egg state 10 to 13 days.

Lar. grassy until Sep. when many attained a length of about  
half an inch it looks out for a better place in which to pass the  
winter, in spring it is active again feeds on grass & completes  
its growth in May - which changes into the caryopsis from which  
the insect comes forth in June.

*Baenoborini* & *Rephole* have a similar history although they appear  
later in the season. Saunders. Can Ent 2. 142



*Erebia* Salman

Club of antennae gradual. Eyes naked, rather small in size color dk brown, usually a ferruginous band or spots with small black eyes papulae white. Sometimes the eyes are obsolete. Only black spots in their head, under side pale; a dark band marked, anten not annulated. Mor Sp. 75. (only costal of primaries inflated).

*Erebia* medusa?

Ment<sup>d</sup>. in *Naturalist in Vancouver Island* H.B. & C. Columb.  
by Lord. 2, 335.

*Erebia* callois (Edw) Colorado. - from Mr Edwards

I.  $\frac{5}{3}$ .



Genus 18 *Erebica*

Scudder Dr. Post Soc Nat Hist 12/404

Eps Bos  
myth name  
Noxos a disc  
eris form }

*Erebica disicoidalis* Meid PESP. 2 p. 527. Mor (H's) 10. Mor Syn. 74

Ins. pl 31

Hab Brit Wt Am. (Meid) north St. (Mor coll) Alaska. (Scudder)

fig 8. Mor Coll fm  
N.H. Stats.*Erebica muncinias* Loebler. Reakert PESP. 6 p. 143. Scudder Proc. Post. Soc Nat Hist 12/404

Hab Rky Mts. Reak, Hab Alaska. (Scudder)

*Erebica usogus* Loebler. Reak. PESP. 6 p. 143.

Hab Rky Mts (Reak)

Genus 19 *Oxygrophenga* unrepresented.Genus 20. *Chionobas*

The species of this genus differ from the others  
} Entomids in their pale dull lines & as it were  
} discolored color indicating their far northern  
} habitat Mor Syn. 71

"note The synonyms of most species are somewhat confused & much uncertainty  
has prevailed in the distinction of kinds from varieties. An excellent & useful  
monograph on this genus by Möschler may be found in the "Wiener  
Entomologische monatschrift for 1863" Meid PESP. 2 p 529.

*Chionobas semicea* Meid PESP. 2 p 528. Scudder PESP. 5 p 2. Scudder Dr. Post Soc  
also. Post.  
fortunicata.

*Coenonympha semicea*. Mor (Say) 11 Mor Syn 80.*Hipparchia* " Har 304 Say pl 50.Ins pl 26  
fig 14 Wt. fm coll of  
Mr. Sabin

Ins. taken June & July on White Mts Wt on the alpine  
Summits 5000 to 6300 feet above the level of the sea found on  
Lichens

Food plants (prob feed on) Lichens

" "

Probably Scudder Am. Nat. Aug 1869.

Hab White Mts Wt. (Mor)

*Chionobas* also. syn of *Semicea* see above

*Chionofas.*

*Sp. very much mutilated therefore this drawing is not quite reliable. as to form &c. fm. South Calif. by D. E. Smart U.S.A.* hope?  
fig 8

*Chionobas jutta* <sup>sp. Möschler</sup> (Hüb.) Meid PESP. 2 p 528. Scudder (Möschler) PESP. 5 p 8.  
 balder. Mor 10 Mor Syn 71

Ins pl 16  
 fig 2 coll of Mr. Sautorn

Hab Brit NA. Arctic Am (Meid) Can. Labrador (Scudder) Greenland Labra (Mor Syn)  
 Can (Can Ent. 1.93) North Labrador & extends as far south as Quebec (according to Edwards) Poek Guide 263

*Chionobas bore* (Meig) Meid PESP. 2 p 528. Scudder PESP. 5 p. 10.  
 Taggote Syn. Meid

booted. B. Syn. Scud. Mor 10. Mor Syn 72. Ins pl 16  
 fig 6. coll of Mr. Sautorn.

Hab Arctic America (Meid) Labrador (Scudder) North Cape Lab. Greenland (Mor Syn)

*Chionobas vexo* (Horn Sch) Meid PESP. 2 p 528 (Scudder PESP. 5 p 13. (of Schiötte)  
 also Rev. Scudder Mor 10. Mor Syn 72.  
 crambus Doubled)

Ins pl 16  
 fig 11 coll of Mr. Sautorn.

Hab Brit N Am. (Meid), Labrador (Scudder) Lapland Siberia Labr (Mor Syn)

*Chionobas nevadensis* B. Scud. PESP. 5 p 25. Meid 0. Mor 0  
 Nevada Chionobas

*Chionobas Uhleri* Harkist PESP. 6 p 145 Meid 0. Mor 0  
 Uhler Chionobas

Hab Rocky Mtns Col. Reak.

Meid PESP. (Edwards) 2 p 528  
*Chionobas chryxus* Doubled. Reak PESP. 6 p 145. Scudder PESP. 5. 16-20  
 Mor 0

Hab Colorado (Reak.) Pike's Peak (Scudder) Ins. S/E 5  
 fur Mr. Thoms.  
 Haydens Exp.

*Chionobas calais* Scudder PESP. 5. Meid 0. Mor 0.  
 Taggote

Hab Hudsons bay. (Scud.)

*Satyrus* Lab. Eyes naked. Lobe long with a spur on the end. one or two veins on the primaries inflated. Wings wide upper side brown or black usually with a broad whitish or yellowish band before the limb. Fourth cell in the primaries under side of secondaries marked. Mor. Syn. 77. Metcalf proposes to limit *Satyrus* to those species generally of large size which have the median & costal veins of the primaries detailed at base.

*Satyrus curius* Bois.

J. V. 7.

*Satyrus charon*. (Edwards)

Hab. Colorado. I sp. fm Mr Edwards coll. Ins.  $\frac{S}{1}$ .

*Satyrus* } *rhodia* (Edwards) sp. fm Mr Edwards.  
*Endia* }  
 Hab. Colorado

Ins.  $\frac{S}{2}$

*Satyrus* } *Wheeleri* Edwards  
 " } *Hoffmani* Emery. p. 31.

Specimen from  
 Lieut. Wheeler's exp. fm  
 Mr Edwards.

Nevada, 42.

J. V. 7.



Genus 21. Urge Genus 22 Lasioommata unrepresented.

a Satyr or dweller in woods.

Genus 23 Satyrus.

- Satyrus alope* Heid PESP. 2. 528. Mor Satyr 10 Mor Syn 26. } Scudder Proc Boston Soc Nat Hist. XI. 380  
*Hyparchia* " Heid. 305.  
 \* *S. "* *nephela* (is var of Heid ?) see *S. nephela*  
*S. "* *pegala*, of Fab. is probably only a variety with but one eye on the primaries (Maud) (Mor Co)  
*Enodia alope*, Reakirt PESP. 6. 145. LSP pl. 2. 23. 13rd 14

Is abundant in open fields July Aug May (Prob) } See pl. 35  
 (June 288) } 19 T. 4 Alope 4th 11 (as *pegala* form)  
 Is known with large yellow brown mark on upper wing on which are 2 black spots with light red line under wing with one spot.  
 Food plants. Grasses & Sedges. Scudder Am Nat 1869 Aug  
 See.

- \* (*S. nephela*) Hab. prevails in W & east St. among the highlands in W & N. Calif. Oreg Edwards PESP. 6. 195.  
 { *Satope* " lowland N.W. N. Eng. N. S. East Pa. W. Va. South. Ohio. (Maud L.)  
 { *Enodia alope* Hab. Rocky mtns Color. (Reakirt p. 58, 145) Nova Scotia Can Ent 2. 167

- Satyrus nephela*. Kirby Edwards PESP. 6 p. 195. Mor 10. Scudder P. Arch Soc Nat Hist XI. 380  
*Enodia* " Heid PESP. 2 p. 527. Mor Syn. 76. Can Ent 2 p. 8. Billings Can nat. 1. 45  
*Hyparchia nephela*. fig. Harris p. 306

See pl. II  
 19 12 9

Hab. Can. (Mor Syn.  
 Can. Satyr. Can Ent 2 p. 8)

Food plants Grasses &amp; Sedges. (prob) same as above

note at the Mendocino in his Catalogue states *S. nephela* to be only a var of *S. alope* all  
 Edwards in a letter says it is a distinct species see also Edwards PESP. 6. p. 195.

- Hab. prevails in W & East St. among the highlands in W & N. Calif Oregon (Edwards PESP. 6. 195)  
 Saunders Can. zone but in Grimsby & St. Catherine's Canada common (Saunders notes)  
 Nova Scotia. Can Ent 2. 167

- (*Enodia sylvestris* Reakirt PESP. 6 p. 145.  
*Satyrus* " Heid PESP. 2 p. 528

Hab Calif Rocky mtns Color. (Reakirt)

- (*Enodia ariane* Reakirt PESP. 6 p. 145 Mor Syn 77  
*Satyrus* " Heid PESP. 2 p. 528

Hab Calif Rocky mtns Color (Reakirt)

- Satyrus Redingsii* Edwards PESP. 4 p. 202. Reakirt PESP. 6 p. 145  
*Redings Satyrus*  
 Hab Burlington Boulder co Col. Edwards. L. 11. Colorado from M. Edwards  
 Hab Colorado (Reakirt)

- Satyrus frankens* Fab. Heid PESP. 2 p. 528 Mor O.  
 (115)

- Satyrus theone* Mor Heid PESP. 2 p. 528.  
 U.S. mid

Mor Syn 77.

*Enodia*  
*ariane*, *agass.*  
 is the road or  
 by the way side (Lan)  
*sylvestris* of the  
 wood or forest. }



*Cocconympha* West. body small wings entirely spandled sometimes entirely destitute of ocellate spots, the 3 principal nerves of the primaries inflated at base head small hairy without frontal tuft. eyes prominent naked Mos. Syn. 80.

*Cocconympha* Kodiak W.S. Edwards Trans Ent Soc. Phil. vol 2 p. 875.

Hab Kodiak

*Cocconympha* brenda. W.S. Edwards Trans Ent Soc. Phil. vol 2 p. 875.

Hab Los Angeles Calif. coll. of Bryan Reakitt Esq.

*Cocconympha* californica

fig taken from sp. in Boston Soc. Nat Hist

Ins. pt. 8  
fig 20

*Cocconympha* Gauss. Fab.

found in natural in Guadalupe Island N. Brit Colum  
by Lord. 2. 336.

*Lybetheidae*.

Larv without spines Ins. palpi very long in the form of a beak.  
wings angular rather robust. W. Mabius Syn. XIX  
antennae short stiff fusiform

*Lybethea*. <sup>on</sup> ~~carinata~~.

Cramer

I 6/11. Edwards Coll. for Whalley ref.





*Calepholis* name proposed by Grote & Robinson in *Tr. Am. Ent. Soc.* 2, 1870 for that group of species placed in the genus *Chalcids* by Westwood. *St. puerilis* which do not flatten tarsus eyes  
infer to *C. crenus* & *C. borealis*  
13<sup>th</sup> Family *Encyrtinae*  
39 Genera in Medvedev's list *PEEP* 2 p. 532<sup>5</sup>.  
all other for *Encyrtinae*

West Indies, Mexico or unrepresented excepting the following 2 genera

*Nymphidium* <sup>argemones</sup> *argemones* Btl. p. 37. Mor (Btl.) 13. Mor Lgn 104  
*Nymphitria* — Syn in GHR. Tr Am Ent Soc. 2. 310  
*Caliphitis* GHR Tr Am Ent Soc. 2. 310

Heat U.S. Cent Am. Mex. (Meid) Geo. Fla (Mor)

*Pharis borealis* Grote & Robinson New Sp. Head 0  
 Nymphs " G.R. Ann NY Soc. Nat Hist vol 6. Col. 1866  
 Catapheli. " G.R. Trans. Am Ent Soc. 2. 310. Last pt H.  
 Collected in N.Y. by Mr. Grote in July. fig 13 fm Coll of Mess G.R.

from nature.

Genus 32 Lemnais Ng head hairy, eyes naked. Antennae rather long  
placoid club long slender. paracarpus more or  
less triangular secundaries suboval vs. Mor Syn 1864

Lemnais unicolor. Nova 1863 Pl. 2. p. 332. Mor (Lind.) 18. Mor Syn 1864

*Lemonias palmeri* H.S. Edwards letter.

3 *Sphecoides* sent by Dr Edw<sup>d</sup> Palmer.  
from St Thomas, Utah in 1869.  
very difficult to be captured in the day and  
I took in the evening when resting on  
Mesquit bushes

can this be var. of *Mormo above ment*? ?

*Stemonias dumeti* ♀ Behr.

21. Arizona.  
S Utah

*Thecla*. *Tab.* club of antennae clavate eyes pubescent, head wings generally tailed  
 palpi nearly straight *Mer. Syn. 91* *Med. 88*

*Thecla* *acron* *Double* *Ed note* 0/11  
*Antarcon* *Bois*



Note "The genera *Thecla* *Lycaena* *Polyommatus* *Argus* *Chrysophanus* &c are partly confused, the species under these headings irregularly classified & their specific characters faintly defined" Meid P&S P. 2 p. 533.

Εὐμαίος myth name. Genus 1 Eumaeus. (Eumene)

*Eumaeus atala* Poey Meid P&S P. 2 p. 533 Mor 0.  
minyas  
toxa.

Ins. pl. 30  
fig 9. Fla.

Ins sent from southern Florida

Hab. U.S. West Ind (Meid) Florida (S.G.)

Genus 2. Epitola 3. Phytala 4. Ogyris 5. Anopsis 6. Loxura

7. Myrcina 8. Amblypodia 9. Liparis 10. Sotania unrepresented.

Genus 11. Thecla. Fairbrother (England)

*Thecla* Fab. in Hb. 1807 *Thecla arsa* Meid P&S P. 2 p. 534. Mor (B&L) 11 Mor Syn 97. B&L pl 32.

Hab. U.S. (Meid) Southern St. (Mor)

"*Thecla isocrates*. Fab. an Indian species resides within the fruit of the pomogranate several (York) being found in one fruit in which after consuming the interior they assume the pupa state. West 2. 539

Lar. pl. B  
fig 10 B&L fig Ins. pl. E  
fig 18. 20, B&L fig

*Thecla acadica* (Edw) Meid P&S P. 2 p. 534. Edwards for A. W. S. 1862. Edwards Butler's. pl. 8.  
disc Lar & Pack guide 365. pl. 1, fig 50, 7

Ins. pl. H  
fig 15. fm coll of Mr. Saunders

Lar feeds on Willows (Saunders notes) June 10. 20 Ins. pl. N  
Ins. Meid July. Can Ent. 1. 95. ♂ fig 11 fm Edwards fig  
Pupa state lasts about 8 or 9. days. Pack.

Hab. Can. (Saunders) New Eng? N.Y. Edwards.

Food plant Willow (Saunders)  
Can Ent. 1. 95

note "Extra dorsal band of under surface of primaries is completely macular the general colors are more as in *T. mellinus* (West.) *T. humuli* Harn. 12. 12. Robinson American Lepidoptera No 3 p. 2.)

*Thecla angustula* Meid P&S P. 2 p. 534. Mor (Kirby) 12. Mor Syn 101

" *angustula*. Ins fig 2 + annis. P. 279.  
Ins taken at Quebec. Canada Saunders Notes Ins. pl. 38 f. coll of Mr. Lamborn. 28  
fig 15 Marnis coll

Food plant probably *Vaccinium* Saunders Am Nat Aug 1864  
Hab. U.S. Brit. N. Am. (Meid) Can. (Saunders)



- \* *Thecla aubermanniana* { See also, *Smilacis* } Head P&SP. 2. 534. Mor. P. Mor. Syn. 102.  
 of which it is a variety Har. 274.

Auburn *Thecla*. Harris

In from Mr. R. Dodge. Washburn Count. I found May <sup>See p. 38</sup> 192.3. Count.  
 Inspr<sup>on</sup> the Mouse ear. or cudweed & flowers of the

"Peppermint." (Mor. Syn. 102 Harris)

- \* Hub. Mass. Count. 33.

Good plants. *Smilax* Red cedar. (Said Am. Nat. Mag.) 1869.

Note "*Aubermanniana* is probably identical with *T. smilacis*". Weid P&SP. 537.

- \* *Thecla* { Calliston Hub. See *T. Falacer*. with which it is said to be identical"  
 and 4 aenomis Syn. Weid P&SP. 2. p. 535.  
 Weid P&SP. 2. 534

- \* *T. Calliston* is supposed to be identical with *T. Falacer* (Weid P&SP. 2. 537)

Others have been some confusion between *Th. falcata* & *Th. morata*. The latter is quoted from the notes in Can Ent 2. 167.

*Thela morata* GHR. desc. Am Ent. 3. 1. 1. in 1868

" *falcata* of Baird & Lee. pt 29. p. 1. 2.

" *morata* Saunders Can Ent. 2. 64. 65. GHR. in Am Ent. Soc. 1. 172.

*Thela falcata*. Godt. Gyr. 18. 600 635. GHR. in Can Ent. Soc. 1. 172. 276

" *Edwardii* Saunders. 1. 172. GHR. in Am Ent. Soc. 1. 172

" *Rustica armatus calamus*. GHR. ex L. 1. 1. 1. 1. 1.

*Thela calamus*. GHR. in Am Ent. Soc. 1. 171.

*Thela morata* Saunders. Can Ent. 2. 62

descrip. L. 15th June. Prop. 27. June. 18. July. Can. Ent. Soc. 1. 172.

1872. figure *Thela morata* is evidently indicated to represent the normal form *Thela morata* Saunders Can Ent 2. 64

*Thela morata* GHR

*Thela falcata*, GHR & Robinson in Tr Am Ent Soc. 1. 323. describes *falcata* of Baird & Lee. as a new species under the name of *Thela morata*.

It takes that the *falcata* of Godt. 1872 text is *Th. calamus* see above.

Hab Can. Can Ent. 1. 16. See also Tr Am Ent Soc. 2. 179.

Refer also to *Th. calamus* } note.

*Thela aff.*

Is taken in South Calif. donated by Dr. J. L. G. 8  
Dr. Chas. M. Smith USA



calanus prop. n. n.

Thecla. calanus Meid pBSP 2 p 534

\* Thecla. falacer Mor 11. Mor Syn 98. \* 13<sup>rd</sup> <sup>ext. ent. [?]</sup> ar 276.

" inornata Grot &amp; Robinson Am. Lepidop. No 3 pl 1.

" Ballston (falacer syn) Meid. 2 p 537.

" Edwardsii? compare below.

Ins found July &amp; Aug (May) amongst bushes.

as T. falacer. Ins pl E.  
fig 6. fm Saunders Can.Lar. Thecla (prob. calanus) found feeding on Oak  
fm 6<sup>th</sup> to 22 June by Mr Saunders Can. Can Ent 1. 98\* as T. favonius Lar. pl A. 2 BVL fig  
fig 28.

Food plant - Hawthorn.

\* " falacer of BVL's plate is a distinct species now called T. inornata? Saunders Am nat. Aug 1869 }

Hab US (Meid) South St. (Mor syn) Can (occasionally Saunders) Md (F&amp;G) Mass. Har

\* " Less Grot &amp; Robinson state that T. favonius of BVL is their T. inornata which is probably a variety of T. calanus, or falacer. }

Edwards

Thecla Edwardsii (Meid o.) Saunders (see also T. Calanus above)

calanus. (Edwards letter)  
Edwards. Thecla.Ins pl E.  
fig 4 Coll of Mr Saunders

" The species not common near London Canada. which has usually been confounded with T. falacer. of which Mr Saunders regards it as a mere variety, the larva is found on Oak."

Hab Can (Saunders)

Food plant Oak.

inornata not formally proposed

Thecla inornata GVR <sup>Edw. 13</sup> <sup>Butcher's part 3. p.</sup>

" falacer BVL Plate. 29. but not of test which describes L.P. pl B Ins. pl E. 15. 16. BVL fig 28.

\* Hab London Can (Can Ent 2. 38 &amp; 40) \* T. Calanus see above Food Oak (Can Ent) See fig 3 Ma.

favonius the most used or perhaps.

Thecla favonius { see T. meliniae Meid pBSP 2 p 536. of which it is a syn. }  
humuli? Har 276 Page 30. }

(?) kept since Thecla Har

Thecla favonius 1<sup>st</sup> pl 25  
fig 5. Ma. (true Grot authority)

Food plant Oak.

T. favonius Ins pl E.  
fig 2 & 3. Smith V Albott's fig{ T. favonius Lar pl A. BVL's fig  
fig 28.  
{ It is probably T. calanus. (falacer) see above.





*also name* *Thecla halesus* *Thecla* P&S P. 2. p. 534 Mor (Fab) 11 Mor syn 91 13 ♂ L pl 26  
*dolichus*  
 Sp. Q. 11. & 12 taken from specimens in Lar P. pl 13  
 coll of Boston Soc Nat Hist. from CW Belgrave (Waco Texas) 2 13 ♂ L Ins pl 36  
 Hab. U.S. (Texas) Panther St. (Mor) fig 6. 16 ♂ L's fig  
 Food plant. Oak.  
 Ins. pl 3  
 11. & 14. Texas  
 see also Psyche of 13 & 2

(See also *T. melinus* p. 30.)  
*Thecla hyperici* *Weid* P&S P. 2. 534 Mor (Btl) 11 Mor syn 94 15 ♂ L pl 28.  
*hyperici* of the  
*St. Johns wort* (Pack)  
*melinus* *Grote's* correction.  
*favonius*.  
 Lar Pl. ~~13~~ 16. *hyperici* Btl fig. Ins pl 28  
 fig 6. Ma.  
 Hab. U.S. (Texas) Geo & Fla (Mor) Food plant St Johns wort.  
 Note probably only a variety of *T. favonius* (*melinus*) (Mor & *Thecla*)  
 ♀ m. dk., colored. head orange. ♀ tail of abd. orange. under wing

*iris* *Thecla iris* *Weid* P&S P. 2. 534 Mor (Godt) Mor syn 99. 13 ♂ L pl 31  
 Lar pup. pl 13  
 fig 11. 13 ♂ L. Ins pl 6  
 fig 19. 13 ♂ L's fig  
 Food plant Whortleberry 12 & 1  
 Hab U.S. (Texas) Geo (Mor)

*Thecla lipanops* *Weid* P&S P. 2 p. 534 Mor (13 ♂ L) 11 Mor syn 76 15 ♂ L pl 31.  
 (compare with *T. favonius* 54 pl 11)  
 own plate 2.3  
 Lar pl 13  
 fig 14. 13 ♂ L. Ins pl 6  
 fig 17. 13 ♂ L fig  
 Food plants Black Jack & other Oaks

*henry* *Thecla henrici* *W. Sp.* GVR Tr Am Ent Soc 1 p. 174 *Weid* 0 Mor 0.  
 Ins pl II  
 fig 18. coll of Mess GVR.  
 Hab. Maine to Pa. GVR. Food plant probably  
*Vaccinium*? Scudder Nat. Aug 1869.

*latus cheap* *Thecla lacta* *Edwards* Pr A N.S. 1862. *Thecla* P&S P. 2 p. 534 Mor 0  
*clothide* a syn. *Edwards* Butterflies Part 3. pl. 1. fig 1 & 4  
 Ins 22 July Paris Maine. Ins pl II  
 fig 17. fm Edwards fig 19 9. ♀ fm Edwards fig  
 Hab Brit N Am. Indec. "Maine" (Pack) West Va (Edwards)

Note "The only specimens I think which have ever been taken were caught by myself near London Canada. I took 20. The May in a wood & the other the 22<sup>nd</sup> near the same spot. I have visited that locality every year since, about that time but have failed to find any more. I sent one to Mr Edwards which is the specimen he now has & retained the other for myself. The latter I regret to say was burnt in my unfortunate fire" (Faunier)





*Thecla Behrii* W.S. Edwards Tr Am Ent Soc. 3/18

Its taken at Lake Mono Calif.

*Thecla tetra* Behr. (in lit) W.S. Edwards. Tr Am Ent Soc 3/19

Hab 0

*Thecla Dryope*. W.S. Edwards. Tr Am Ent Soc. 3/19

Its approaches *Lycarna* in color markings of under side  
Habit plain Country Colorado.

*Thecla sylvanus* Bw.

This is disputed by Stueben who says it is called  
Fockium Bw by Schuler of Iowa the Fockium Edwards calls it  
right to be dark purplish on the upper surface & has long threads like tails (Stueben says) 3 11



Fitch Tr. N.Y. Sci. Soc. 1867 vol 17. p. 748.

*Thecla nippon* Thecl. P.E.S.P. 2 p. 535. Mor (B&L) 11. Mor Syn 98. Har p. 278  
B&L pl 33.

Lar found feeding on Pine June 27. Can. Saunders  
in Apr May (1874) Can Ent 1. 95.

Lar pl  $\frac{13}{17}$  8. B&L fig  
Ins pl  $\frac{28}{7}$  9. Ind.

Food plant Pine. (B&amp;L &amp; Saunders)

Hab U.S. (Thecl.) Geo Fla. (Mor) Rocky Mtns Col. Reakins P.E.S.P. 6 p. 146. Can. (Saunders) Mex. Fl.  
N.Y. common (Fitch)

name

*Thecla poecus* Thecl. P.E.S.P. 2. p. 435. Mor (Hüb.) 11. Mor Syn 103. B&L pl 35.

Lar pl  $\frac{17}{17}$  2. B&L fig

Ins pl  $\frac{25}{17}$  8 coll. of Dr Morris. Ins pl  $\frac{17}{17}$  7. Texas from  
Dr. Hübner }  
Dr. Hübner }

Hab U.S. Mex. Cent. Am. (Thecl.) Southern St. (Mor.) Texas (B&L)

*Thecla scutogea* n.s. C.P. Whelley, Jr. Port Loe Nat. Hist. XI. 162.

Hab N.Y. Camp.



*Thela jaeneta* Scudder U.S. To East Soc Nat Hist. XI. 435 Ent notes 1.10.11 **149**  
 Hab Fla allied to *T. halensis*, Scudder.

*Thela selenus* (Weid P&SP. 2 p 535.) see *T. falaces* as it is said to be the  
*favonius* Weid " *T. favonius* of B&L pl 30.  
*humilis* "

Note "B&L's figures are unreliable" Weid

*Thela similacis* Weid P&SP. 2 p 535. Mon (B&L) 11 Mon Syn 78. B&L pl 33.  
 See also *T. arizoniana* Lar. pl B. 7. B&L fig 38.  
 as *pl 28* 38. as *arizoniana* P. 29.  
 Food plant Green or Cat B&L

Hab W.S. (Weid) Geo Fla (Mon) Md. (B&L)

*Thela strigosa* Weid P&SP. 2. p 535. Mon (Har) Syn. 101. Mon Cal 101. Har. 276  
 desc. Lar Pack guide 267.

Streaked *Thela* (Harris)  
 Lar found feeding on thorn June 13, Ins pl G  
 taken Mar. 1st Aug. (Saunders Can) fig 12. coll of Prof. Verill Yale.  
 Ins pl H  
 fig 3. coll of Mr Saunders

"Mr Saunders of London Canada reared a specimen from a larva taken and fed on thorn  
 July 13 pupa formed June 19(?) found by  
 a few rather threuby on the anterior portion of Food plants Apple Oak Willow (Scudder Am Nat Aug 1869)  
 of the first & second segments. (Pack Guide 268, " " Thorn (Saunders Can Ent. 1.100

Hab. Can (Saunders) Can. (Verill) Man. (Mon Syn) Can (Can Ent. 1.10)

*Thela thelei* n.s. Behr. Edwards & Am Ent Soc Phil 2 p. 376.

Hab Calif.

Edwards. & Am Ent Soc 2. 209.  
*Thela Ontario* Red. London Ontario Co Can. Can Ent 1.21  
 near *T. humilis*. Edwards.

*Thela rapahoe* Reakirt P&SP. 6 p 146.

"varies from *Lacinius* of B&L. Reak

Hab Rhy Mtns Color (Reak.)

*Thela clothilde* Edwards P&SP. 2 p 15. See *T. calva*. p 29 x. of which Mr Edwards  
 says "it is a var." (Edwards letter)

"sent to Mr Edwards by the libbe Provancher from Port ney near Quebec" the libbe tells  
 me he had never taken a second specimen" (Saunders notes) } Food plants prob Ribus. Gomista }  
 Hab Can } 4 Hedyosorum (Scudder Am Nat Aug 1869)

*Thela lorata* W.S. P&SP. & Am Ent Soc 1 p 171.

said to be allied to *T. parva* & see: G&P. Am. Lep. no 3 pt 2. where it is  
 stated to be *T. calamus*.

Hab Va.

*Lycæna* Fab. club of anten ovate eyes naked hind wings not tailed (West 88)

*Lycæna* Jac. Edwards

J. V. 10. from ~~Whitely~~ <sup>Whitely</sup> ash

Resembles

*Lycæna* *valet* of Edwards  
Polysommata " 1880.  
p. 17

*Lycæna* Kodak W. Edwards. J. Am Ent Soc. 3/20.

Hab Kodak

*Lycæna* pheros. Bds.

Mount. in Naturalist in Vancouver Island Brit Columbia  
by det. 2, 335.

*Lycæna* glaucous Edw.

J. V. 10. Edwards coll. from ~~Whitely~~ <sup>Whitely</sup> repetition

Genus 12 *Lycaena* (Blanch.)

Small, slender, minute, rose legs, black for marking, with small  
 black spots on the sides of the abdomen, dorsal side of the wings  
 apparently colored by a slender nerve.

Alaska  
 1000 ft.

*Lycaena acmon* (Doubled) Meid PESP. 2 p 535. Reakirt PESP. 6. p 147.

" *antaeon* Syn Meid

*Polyommatus acmon* Mor 12.

" *antaeon* ? Syn of *acmon*. Mor Syn. 87.

(See also *Polyommatus antaeon* P. pl 38 fig 7.

Calif

Ins pl 38  
 fig 6. 7. coll of Mr Sautorn

Ins pl 0  
 fig 11. 2 Dr & Smart. S. Calif. (?)

red many  
 appa type

*Lycaena comyntas* Meid PESP. 2 p 535. Mor (Godt) 12. Mor Syn 83. Bld pl 36.

*Thecla* -

*Polyommatus* " Har 275.

Lar pup. pl A  
 fig 13. Ins pl fig 7. fm Bld fig.

Ins found in woods & dry pastures July Aug (May) Lar pl 2 & pl 2  
 pupa usually fastened to a leaf by tail & a loop of  
 silk passed over the back & into as chrysalis about  
 4 or 11 days. Ins. varieties pl 28 he 27. fig 7. 10. 11. 12. Ma. fig 6. 9. 10. Ma. 9 pl 26  
 fig 3. Ma.

Good plant. Bush clover. *Lupulifera*.

Yellow clover, Ma

*Lupulifera capitata* Scudder Am Nat. 1869.

Calif Ma common (P) Can not common (Sautorn)

*Lycaena* ? L. yellow clover Ma July.

L pl 18  
 fig 10

*Lycaena hanna* Meid PESP. 2. 535.

" *ubolides* Meid. Syn.

" *pseudoptiletes* Meid.

" *silenus* Mor (Poy) 13.

Argut. *pseudoptiletes*. Mor Syn. 82. & Bld. pl 35.

Ins pl F  
 fig 10. fm fig by Bld. as *pseudoptiletes*

Calif W. West Ind. Cent Am (Meid) Southern St (Mor)

note " the Q in *Bairdwal* *Decontes* is incorrectly marked & too dark & brown  
 in coloring (Meid)

*Lycaena luea* Meid PESP. 2 p 536. Mor 12 Mor Syn 90. Scudder P. Post Sec Nat Hist 1400

*Polyommatus luea*. Hanna 275.

Specimen fm Coll of Prof Verill Yale. It is

rather common in some parts of lower Canada

about Montreal & Quebec. (Sautorn notes.)

Ins found up St. Mary's.

Good plants probably *Melilotus* & *Yucca*

Alaska Sautorn  
 Hab. Man. (Har) Canada. (Sautorn) Count (Prof Verill) Blackthorn and Wild *Lygia* (Scudder Am Nat aug 1869)

*Lycaena lydamus* (Doubled) Meid PESP. 2. 536 Mor 0. Edwards butterfly pl. 3.

*Polyommatus* v. *Edwardsi* No 14 Dec. 1861.

Ins. \* *carlyle* in Apt. (West Va) Edw.

Ins pl K  
 fig 9 coll of Mr Sautorn.  
 fm West Va

Calif. Brit N Am. (Meid) West Va (Sautorn)

Mich Ohio West Va. Southern St. to Geo. (Edwards)

Massachusetts. Lab. (Am Ent 1. 67)



*Lycaena modesta* C. J. Maynard. Am. Nat. VII, 178  
 Hab. Florida (Key west)  
 In fragments & edges of bushes generally keeps  
 in the shade of the foliage

*Lycaena molitor* Edw. J. 12/3 ♂  
 Hab. - Arizona Wheeler &c 1/5 ♀

In fr from Virid & Mes. by Dr Palmer 1869. Ins pl 13

neglected

*Lycæna neglecta* Heid P&S.P. 2 p 536.

*Argus pseudargiolus* Mor. 12. Mor. Sep. 52. 134 pl 36. (see also below *pseudargiolus*)

*Polyommatus*. 50. Har. 275.

*Thelca* *Crane* blue butterfly (Harris)

I found July 12 (Can) Saunders.

Food plant Hogwood (Cornus) Willow Saunders Can Ent 1. 100

" *Erythronium*? (Saunders Am Har Aug 1869)

addrs tongue on dogtooth violet. Har 471

Hab. N.S. (Heid), Geo. (134) Can (not uncommon) (Saunders)

Ins pl 11  
fig 1.11 B.S. fig  
Ins pl 11  
fig 5.6 B.S. fig

false argiolus

*Lycæna pseudargiolus* (see also *L. neglecta* above of which it is a synonym) Heid P&S.P. 2, 536.  
argiolus. S.P.A. pl 15. Edwards p&S.P. 6. 204

*Thelca*

L.P. June Geo.

Ins pl 33  
fig 1.2 Md  
L.P. A. Ins pl 6  
fig 1.5 S.P.A. as argiolus

Hab. N.S. (Heid) Geo. (S.P.A.) Md. (S.P.A.) Good plants Coral plant & Red Root on Red Shank N. S.P.A.

\* "this is true *pseudargiolus* but too small" (Edwards letter)

Scudder

*Lycæna Scudderi* (Edwards) Heid P&S.P. 2 p 536. Mor. O.

*Thelca*

Scudder *Lycæna*.

Lar. feeds on *Lupinus perennis*. Can.

Ins abundant in Canada (Saunders notes).

Food plant *Lupinus perennis* (Saunders)

Hab. Brit N Am (Heid) head waters of Saskatchewan (Saunders) Can (Saunders)

1st June little Naksheshookharbour. Int. Am Ent 1. 67.

Ins pl 38  
fig 10.8 few head waters of  
Saskatchewan in  
coll of Mr. Sauborn

molt

*Lycæna violacea* (Edwards) P&S.P. 6 p. 201. In Am Ent Soc. 1 p 287. Heid O Mor C  
Edw & Butcher's Pl 3  
pl 1 fig 11.14

*Thelca*

Ins appears the first warm days in spring  
Sometimes as early as 7.30 or 4th Apr. abundant females about the 10 Apr  
as the 30 Mar } It is attracted by the peach blossoms (Edwards West Va)

Ins pl 28  
fig 2.4 Md.

Hab. West Va. Pa. prob Ohio. lower United States (Edwards) Md. (S.P.A.)

Eng? May? Can. Edwards.

Food plants { Wild Cherry. Cult? Plum  
Eupatorium? (Scudder Am Har Aug 1869)

*Lycæna pembrina* O Edwards Pr A N.S. 1862. Heid p&S.P. 2 p. 536. Mor. O.

*Thelca*.

" Is taken at Cacouna 19th July a larva was Ins pl 11  
taken at the same time feeding on a blue vetch (*Vicia cracca*) which I fig 16. coll of Mr. Sauborn. Can  
strongly suspected to be the larva of this species" (Can Ent 1. 12 Saunders)

Hab. Brit N Am. (Heid) Saunders

Food plant *Vicia cracca*? (Saunders)

note " Taken from below Riviere de Loup.

on the St Lawrence. I found a larva

there which I supposed to be this species feeding on *Vicia cracca* but failed  
to rear it" (Saunders)



*Lycæna exilis*. Edwards letter.  
*Polyommatus exilis* Bdr. Mor 12. Mor Syn 87. Heid Sp. Ent Soc Phil 2. 537  
 Sp. 1869. fm Dr Palmer. border Ariz Mex. Ins pl 2.  
 1.9.17

Hab. Univ Ariz (Palmer) California (Edwards).

*Lycæna Saundersii* Heid 1. Lar 98.  
*Saundersii* *Lycæna*. Ins pl 2. Can. coll of Mr }  
 Larva sent from Canada by Mr Saunders. fig 9. coll of Mr Saunders }  
 Food Plant Willow.  
 Hab Can (Saunders) Can.

*Lycæna rustica* Edwards. Reakirt P.E.S.P. 6 p. 147. Ridings p. E.S.P. 6 p. 201

Hab. Pike's Peak. Color. (Reakirt)

*Lycæna anna* (Edwards) Reakirt P.E.S.P. 6 p. 147.

Hab. Pike's Peak. Color Calif (Reakirt)

*Lycæna mortalis* Edwards P.E.S.P. 6 p. 206.

Hab. Calif. (Edwards)

*Lycæna lycea* Edwards Reakirt P.E.S.P. 6 p. 147. V 2 p. 507.

Hab. Calif. Color (Reakirt)

*Lycæna echo*. Edwards P.E.S.P. 2. p. 507.  
 Hab. Calif.

*Lycæna orcus* W.S. Edwards Sp. Ent Soc Phil vol 2. p. 876.

*Lycæna* Edwards. *no decided markings* on the underside  
 Hab. Dr. Francisco Edwards.

### Genus 13 *Namias* unrepresented.

reproduces large toeh? gorges? Genus 14 *Chrysophanes*. Copper's

*Chrysophanes americanus* Heid P.E.S.P. 2 p. 536. (*Chrysophanes* Pack guide 264)

*Polyommatus phleas* (Phleas. Heid) Mor 12. Mor Syn. 84

*Lycæna americana* Har 243.

American Copper (Harris) Small Copper (Can Nat. 219)

*Polyommatus americanus* Can Ent 2. p. 8. July.

Insect passes the winter in the larva state. It is common in Canada. (Saunders Can Ent. 1. p. 4) Broods in one season. (Pack guide 264)

"Ripe usually suspended under a stone" Pack. Food plants "Rock" Sorrel

Hab. U.S. Brit. Am. (Heid) Europe Africa (Mor) Can (Saunders.) Mex (S.G.)  
 Cacauna. (Can Ent 1. 12) + Can Ent 2. 68

*Chrysophanes. hyacinthinus* *Linnaeus*  
*1758. Sup. Pl. Acad. Bot. Berol. 5<sup>a</sup>.*

*Chrysophanes. cupineus.* Wd. Edwards Tr Am Ent Soc. 3/20  
 Hab Oregon

*Chrysophanes. hermes* n. Edwards Tr Am Ent Soc. 3/21.  
 Hab Calif

*Chrysophanes. virginianus* n. Edwards Tr Am Ent Soc. 3/21  
 resembles *Anota* Baird the black spots of under side are  
 much heavier than in *Anota*. & the orange band a marked feature (Emery)  
 Hab Virginia city Nevada

*Chrysophanes. virginianus* <sup>ensis</sup> ~~ensis~~ Edwards:  
 Hab Colorado  
 $\frac{3}{7}$   
 may not this be *virginianus* above mentioned?

*Chrysophanes. sericeus* Edwards.  
 Hab. Colorado  
 $\frac{3}{8}$  from Mr. Edwards



*Polyommatus* *Bethune*  
Can Ent 1. 8.

*Chrysophanes eperanthe* *Meis* P&S P. 2 p 536.

*Polyommatus* — " — *Morris* 12. *Mor Syn.* 85. *B&H* pl 38. } *Ins.* pl 38  
*Lycaena* — " — *Harris* 2/11. } *fig 4* *fm B&H* 1/4  
*Eperanthe* butterfly *Harris* } *Ins* pl 23  
note " this species is abundant on the borders of a large pond near London. Can } 16. 15. Many coll. of *M. Saunders*  
during the first week in July. I have taken as many as 80 specimens }  
in 2 or 3 hours. I have never taken it away from this particular spot }  
it has however been taken by other collectors near Toronto but rarely " }  
(*Saunders* notes)

Food plants probably } *Buckbean*. *Water Dock* or  
} *Sorrel* possibly *Cranberry*

*Hab* U.S. (Meis) *Meis* St (Mor) *Mass* (Saunders) *Can* (Saunders) } (*Saunders* *Am Nat.* Aug 1869)  
abundant near London *Can* *Bethune* *Can Ent* 1. 6

*Chrysophanes thoe* *Meis* P&S P. 2 p 536.

*Polyommatus*. — " — *Mor* (B&H) 12. *Mor Syn.* 84. *B&H* pl 38.

Egg. 6<sup>th</sup> July. *Can* & described by *Saunders* *Can Ent* 1. 57 } *Ins* pl 25  
*Ins* not uncommon London Canada there are two broods in one } *fig 9. 10.* coll. of }  
Season, the last brood appear quite late & the Larva has been } *Dr Morris*  
reared by *Dr Beadle* of St Catherine's feeding on a species of }  
*Polygonum* or *Knot weed* " (*Saunders* notes)

Food plant *Polygonum* (*Saunders*)  
" " *Polygonum* (*Saunders* *Am Nat.* Aug 1869)

*Hab.* U.S. *Can* (Meis) *Can* (Saunders)

*Chrysophanes tarquinus* *Meis* P&S P. 2 p 536. (See also *C. porsonna*.)

*Polyommatus crataegi* *Mor* p 12. *Mor Syn* 85. *B&H* pl. 37.

*Chrysophanes porsonna* (*Scud*) a variety (see below)

*Lar* pup. pl 13 } *Ins* pl F  
fig 3. *B&H* fig } *fig 9. B&H* fig.

*Lar* pl 22 }  
fig 4 *Ma.*

*Ins* pl 26 } *fig 38*  
fig 7. *Ma.* } *fig 4* *Ma.*

Food plant Hawthorn.

*Hab* U.S. *Brit* & *Am* (Meis) *Ma* (S&L)

*Chrysophanes porsonna* *Scud.* (Meis) } probably only a var ♂ of *C. tarquinus*  
*Polyommatus* " *Meis*. P&S P. 2 p 537. } (see also *C. tarquinus*, above.)

Larva "found on Oak in June, at Toronto (*Saunders*) } *Ins* pl 23  
fig 11. *Am* *Andover* *Mass*

Food plants Oak (*Saunders*)

" " probably Arrow wood, Elder, or Hawthorn }  
*Scud.* *Am Nat.* Aug 1869

*Hab* *Mass.* *Can.*

Note "supposed to be the ♂ of *C. tarquinus*" (*Meis*)

*Polyommatus* Lato club of antennae abrupt compressed eyes pubescent or naked  
 wings entire, posterior absolutely denticulated. (West. 88)  
 palpi very straight. Mor. 88. ground color of wings more or less  
 fuscous at least in one of the sexes (♂)

*Polyommatus* anata. on authority of H. Strocka,  
 S. 4.

*Polyommatus* Hillebrandi, auth. of Edwards.

*Chrysophanes*. *Athena* ♀. Edwards letter.

In fr. South Calif. presented by Dr. C. Smart

In pl. 9  
fig 10

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*Chrysophanes*? *Diore*

This sp. was sent amongst a lot of others from the West  
but no particular locality was given.

In pl. 26  
fig 10.. West St.

West St.

Genus. 15 *Xerites* 16. *Lucia* 17 *Miletus* 18 *Pentile* unrepresented.

Genus 19? *Polyommatus* (*argus*)

*Polyommatus antaegon* Heid p E.S.P. 2 p 536 Mor O.

*Lycarna acmon*. probably identical (Heid) see *Lycarna acmon* p. 31.

In pl. 38  
fig 7. as *Pantegon* fr. Coll. of  
Mr. Sanborn Mass.

*Polyommatus helioides* (Mer) Heid p E.S.P. 2 p 537. Mor Syn (Bdu) 86.

Reakir's p E.S.P. 6 p 148.

Has U.S. (Heid) Rky Mtns Calif. Colorado. (Reakir)  
South Calif. (Dr. Smart)

In pl. 23  
fig 12. Calif. fr. Coll. of  
Mr. Sanborn

In pl. 9 South Calif.  
fig 2 Dr. C. Smart

*Polyommatus franklinii* Curtis Meia O. Mor O.  
*Franklin's polyommatus*.

In pl. 38  
fig 9. fr. Labrador coll. of  
Mr. Sanborn

Has Labrador (Sanborn)

*Polyommatus castro* N.S.P. Reak p E.S.P. 6 p 148.

Has Rky Mtns. Color. (Reak)

*Polyommatus antitubastus* Hüb Heid p E.S.P. 2 p 536.

Has U.S.

*Gomphus strobilus. cramer. (Edwards Lett.)*

Now brought by Dr. Palmer from border Arizona  
& Mex. 1869.

Ins. pl. 1869

Hab. Arizona Mex.



6 feet of uniform size, hence taken with others on open & another  
last clear inside, leaves mostly green, horizontal in upper  
position, dark, almost black & often ornamented by a black  
oblong patch, last joint very small, maxilla very long.  
white, cylindrical, cylindrical without spines, head very large &  
red as leaves. Chrysalis entire without angular prominences  
formed at the angles of the cells in the

After Larvae spindle shaped naked with a remarkable  
solitary & often tube in folded leaves like the Tortricidae  
use cocoon of dead leaves or subtle held together by silken threads  
papae somewhat conical & generally covered  
with a bluish white powder. (Pack guide 269)  
Skipper's. antennae generally immured in a hook. web

June 15. Hesperia

Note " No reliable systematization of this family has been attempted by the compiler  
of this catalogue (Heidemeyer) a searching monograph on the "Hesperians"  
by some capable hand would be very desirable. Doubleday left this portion  
of his work unfinished & Westwood does not seem to have attended to it with  
necessary care & patient investigation " Heid P&S P 2 p 561.

Genus 1 Pyrophysga. 2. Erycides West Ind Mex & Cent Am.

Yuvd an angle. ovipos tail.  
20 with Papae "papae" Agan. not in Ser.

Genus 3 Gonioris (Eudamius)

Gonioris lyceas Heid P&S P 2 p 538.

Eudamius " Grotos coll. Foudes Proc. Acad. Soc Nat Hist. XI. 389 84

Hesperia " Mor (Eryc) 14 Mor Syn 106. S & A pl 71. S & A pl 20.

White bordered Skipper S & A

Lar. pl 1  
fig 13 Md.

Lar found feeding on Lesnodium Md. July. Ins pl 35  
fig 10 Md.

Eudamius lyceas fig 71. Large white somewhat  
white bordering papae. 20-30. 20-30. 20-30.  
found throughout in 20-30. 20-30.  
"S & A on Hesperia. (Erycides) (Erycides) (Erycides)

Hab US (Heid) Md (S.)

Man. Food plant. Hedysarum. S & A  
Lesnodium (S)  
Sick tree/old

The holliness of the family Hesperia are generally (in England) known by the name  
of "Hollies", their flight being a peculiar short jerky motion & frequently settling on  
flowers leaves or branches

Desmodium dillerii (Nutt.) Can. Ent 2. 163

Gonioris proteus Heid P&S P 2 p 538.

Eudamius "

Hesperia " Mor (S) 14. Mor Syn. 106. S & A pl 18. 73 S & A pl 29.

Swallow tailed Skipper (S & A).

Lf. fig 1. S & A. Ins fig 29  
fig 11 S & A. (Columbia)

Lar spins the leaves together for a shelter & protection from enemies & was taken on Lima bean  
Pupa formed in the folded up leaves & is covered with a bluish white bloom or powder  
Ins, appears July & Aug (Georgia)

Eudamius proteus - fig 71. Head 69 ground coat  
Swallow tailed skipper fig 29-30. 20-30. 20-30.  
Pupa on Helianthus annuus. 20-30. 20-30. 20-30.  
August 10-15

Food plants Legumes. mild pea  
Lima bean

Hab. U.S. Mex. West Ind. Can. im. (Heid) S & A (S)

yuvia angle. 10. Bos a lobe.

Genus 4 Goniloba (Eudamius)

Goniloba bathyllus Heid P&S P 2. 538.

Eudamius " Harris 312. Bellin. Can. Ent. 1. p. 46

Hesperia " Mor (Smith) 14. Mor Syn. 106. 13 S & A pl 74. S & A pl 22.

conspicuous. thorax. Antennae with an  
ang. & venous cloth the terminal half of wh.  
4. affixed forming a clavate hook acute at tip.  
Ant. angle of secondaries produced into  
a small short tail turned backwards or into  
an obtuse point down dist. of secondaries  
often varied with silver patches. Mor Syn. 106

Eudamius bathyllus fig 71. Head 74. Ground coat  
83 oval fig brown. Papae (about which double. Thin. Papae)  
Lar. fig. 71. Head 74. Ground coat  
Pupa on Helianthus annuus. 20-30. 20-30. 20-30.  
found on Helianthus annuus. 20-30. 20-30. 20-30.  
August 10-15

Larva spins the foliage together as a retreat  
keller. "found from London to Montreal Canada  
common" (Saunders notes)  
Ins June July (Man. Mex. ap. Smith & S.)

Lar. fig 13  
fig 22. S & A. fig 23. S & A. fig 24. S & A.  
Ins fig 29. 11 Md.

Food plants. Glycine Roggars lici Agnolossium Morris  
& Hedysarum - S & A; 325

Hab US (Heid) Md (S.) Can. (Saunders) H & B

\* It will be observed that the figures of this larva are quite different in dorsal  
decolor form those by Smith & Abbott.



*Eudamus liturus*

found *sericea striata* Linton 23: Pl.  
N.Y. Cab. nat. hist. 51.



*Syrichthys* *ericolorum* Bois Ann Soc Ent Fr 1852, p 313  
~~maxillaris~~ Bas. ~~*Syrichthys*~~  
 I. 21/3. fm dent Wheeler  
*Syrichthys* *teselata* Soud. ~~*Syrichthys*~~  
 I. 21/4

*Nissoniades ausonius* Lintner 23 Ann Rep NYS Cab  
 Nat Hist. 3p.  
 as its markings it resembles *N. marshalli* more  
 than any other of our species. I. 21/4 Lintner

*Pyrgus* a tower or turnot Genus 7 *Pyrgus*

*orcus*

*Pyrgus orcus* Heid PESP. 2 p 538.  
*alcus* Heid - Reakut PESP 6. 150  
*Synchlus* Heid.  
*Stomphala synchlus* Mor (ab. 14)  
*Synchlus alus* (Linn) Mon Syn. 121.  
*Eupheria orcus*. G&P.

Ins pe 29  
 fig 12 Md.

Hab. U.S. West Ind. Mex. Cent Am. (Heid) Rocky mtns Color (Reakut) Md. &c.

*deus* (?)

*Synchlus deus*. W.S. Edwards PESP. 6. p 206.  
 Hab Am.

*Synchlus oceanus*. W.S. Edwards. letter.  
 Hab Am. Mex. 4 Specimens brought by Dr Palmer from border Arizona &  
 Mex. 1869. Ins 29  
 fig 12.

*Pyrgus neura* Fernald PESP. 6. p 150.  
*Eupheria* " Edwards PESP. 4. p. 203. Edwards Butteflies

Ins pe 3  
 fig 12 in Edwards. fig

Colorado. (Mr. Fiedings)

Genus 8 *Nisioinades* (*Thanaos*) (Nisioinades still Antennae with club somewhat funiform elongate curved. Tips grainately acuminate. Labial palpi very minute. Primaries dusky. Ventrals extend when at rest. 9th thoracic seg. 11th

*lens* (?)

*Nisioinades brevis* Heid PESP. 2 p. 539. Mor (B & L) 13. Mor Syn. 114. B & L p 66 114

*Thanaos* " - Har. 309.

*Black Skipper* Harris

L. Huppa 13  
 12. B & L.

Ins pe 29  
 fig 12. 8. Md.

Ins "rather common in Canada  
 especially in spring" (Saunders notes)

Food plants Legumes. B & L.

Hab U.S. Can. (Heid.) Can (Saunders) Md (J.G.)

" " Pulse family (Saunders Am Nat Aug 1869)

Grand Har.

*Eupheria* prob. *Thanaos* found feeding in Harle July 31. Saunders Can Ent. 1. 101. food H & L

*catallus* prop. name. *Nisioinades catallus* Heid PESP. 2 p 539. Mor. (Sm) 13. Mor Syn 115. S & A p 24. B & L?

*Black Skipper*

Lar pe 13  
 fig 13. B & L?

Ins pe 30 & 37  
 fig 7. Md. C Md.

Larva spun the leaves together <sup>as a retreat</sup> & feeds upon the foliage  
 Pupae formed in this retreat  
 Ins not rare Md. but "rare near London Canada (Saunders)

Food plants Horse mint *Monarda punctata*  
 S & A & Saunders Am Nat Aug 1869

Hab. U.S. West Ind (Heid) Rocky mtns Colorado Reakut PESP 6. 150  
 Gr. (S & A) Md. (J.G.) Can. (rare) (Saunders) & Billings Can Ent. 1. 46.

Note "Subject to variation" (Heid)





youthful ?

*Nisioinades juvenalis* Meid. P.E.S.P. 2 p. 539. Mor (B.H.L.) 13. Mor Syn 116. B.H.L. p. 65.  
 Thanaos " - Har 309. S.V.A. p. 20  
 ~ persius ? Scudder see below Lar found on Oak. Sep. Md. pt 2  
 S.V.A. p. 20  
 S.V.A. p. 20

*Longy Skipper* S.V.A.  
*Juvénals Skipper* Har

L.P. p. 13  
 pg 14. 15. S.V.A. p. 4  
 Ind pt 34  
 15. 2. 3 Md.

Larva spins leaves together as a retreat. Feeds on foliage. I found as late as Sep. Md.  
 Pup. formed in this retreat. Remains as pupa about 9 days. The outworn pupa in Georgia continues in the chrysalis state throughout the winter.  
 Ind. appears Aug (Georgia) & another brood the following spring.  
 "2 broods also in Can & insect not uncommon." (Saunders notes)

Food plants. Glycine on ground nut (Harris)  
 Vetchling (S.V.A.) I found on Oak (S.V.)  
 Oak. (feeds on. Saunders)  
 Lathyrus (Scudder Can Nat 1869 Aug)

Hab U.S. (Meid) Geo (S.V.A) Mass. (Scudder, Can. (Saunders) - ab Man (Har)

*Nisioinades persius* Meid. P.E.S.P. 2 p. 539. Tot. Scudder. Ex. inst. 1868.  
 " *juvenalis* syn Meid  
*Helperia persius*. Can Ent 1. 101.

Ind pt H  
 pg 5. sent as *persius* by Mr Grote.  
 Ind T for Mr Scudder see Ref. pt 7. pg 4

see also *N. juvenalis* above of which  
 it is a syn. or variety.  
 Mau.

prob. Columbian. Saunders Can Ent 1. 101

note "is this *juvenalis*? it is not uncommon in Canada but is said to be  
 a different species from *juvenalis*" Saunders notes. Har. Harthay (Can Ent 1 p. 12)  
 ? *Helperia* possibly of *Persius* found feeding on Wild Columbine. *Aquilegia canadensis*  
 they had drawn the leaves together & covered them with cotton threads forming a nice case in  
 which they resided when not feeding. Saunders Can Ent 1. 101

*Nisioinades pygmaea* Scudder + Can Ent 2. 115.  
*Euclanus. pygmaea*. Can Ent 2. 156

Food plant *Hedysarum* } Can Ent. 2. 115.  
 (Clover. 156

+ Saut. H. Scudder. Cairo Egypt. eggs on. *Lespedeza ciliata* Can Ent 2. 163

*Nisioinades* *Feelus* new sp. Sauter 23 Ann Rep  
 N.Y.S. Cab. Nat. Hist. 30.

*distinquish* from *brisa* by its uniformly smaller size  
 + in the central patch of black scales between the bands  
 J. T. 5

*Nisioinades luculus* Lintner 23 Ann Rep N.Y.S. Cab. Nat. Hist. 33

the common species at Schoharie  
 female resembles *persius* it is however of smaller size &c  
 see Sauter 33.

J. T. 3. fm Sauter.

*Nisioinades monticola* ♀ Lintner Rep. N. Y. 8

J. T. 8

*Nezara hammondi* Edw. & Am Ent Soc. 3/22

allied to *Mesocnemes* but belong to a distinct genus  
Missouri (L. K. Heyburn. 1869)

Cyclophorus trop name

was all Pinos friend

Genus 9 Cyclophorus unrepresented.Genus 10 Pamphila (Hesperia)

note "This genus is so unsettled & mixed up with that of Hesperia proper that it has seemed best for the present to refer the individuals that occasionally stand under this generic head to the genus (13) Hesperia, Meid p. 539.

Genus 11. Achlyodes, Ent AnnGenus 12 Euschemon unrepresented.Genus 13 Hesperia (Pamphila)

Hesperia Linn. Achlyodes  
compress in front & incurved  
Ant. of mod length or elongate  
straight slender with a subterminal  
club 1/2 hooked. Mor Syn.

Pamphila Fab. Ant. terminally by a  
thick nearly straight club generally with a  
thick slender hook primaries alone erect  
in repose. Mor Syn. 113

Pamphila Fab. club of antenna almost  
periform & hooked at tip fore wing nearly  
bimarginal. Meid. 55

note "Most of the following species of Hesperia are said to feed on grass

Larvae of unknown species have also been found on Poplar. Scrub oak

Harle Columbus & Lepidodera capitata " (Saunders Am Nat. Aug 1869)

& Har. 317

Saunders J. R. Bush Soc Nat Hist. XI. 330 & 331. Billings Can Ent 1/16

Hesperia athena Meid. P&S P. 2 p. 540. (genus uncertain) See also H. cernes below Mor Syn 111

" cernes Syn. Meid.

Pl. 23  
fig 6, 9. { as H. athena cell of  
Mr. Sanborn.

" 2 broods annually London Can common especially  
in the spring " (Saunders notes)

Hab. U.S. (Meid.) Can. (Saunders) Mass. (Sanborn) Can. (Can Ent 2 p. 8.  
Billings July)

Hesperia cernes. Meid. P&S P. 2 p. 539. Mor O. Mor Syn 117. Harris 316

" athena (see above.)

" cernes? Bois. & Har 316

Ins. Pl. 34  
5. Meid. & Pl. F.  
20. Pl. 1/2 fig.

Hab. U.S., Can. Meid.

note "is not this identical with H. athena?" (Saunders letter)

Hesperia accius. S&A. Meid. P&S P. 2. 539. Mor Syn S&A pl. 23.

\* Pamphila origenes? Mor Syn. in which cernes of 13 is also mentioned as a Syn.

Brown cow skipper of S&A.

Lar. Pl. 13  
fig 19. S&A, fig Ins. Pl. 6  
fig 8. 10 S&A, fig

Larva folds the leaves together as a retreat  
Ins. 24 June (Geo)

Food plant Glycyne frutescens S&A.

\* note "much confusion here as there is also a H. origenes of Donovan pl. 48 from India  
Meid. P&S P. 2 (which is "of doubtful habitat." Smith & Abbotts figures of H. accius differ entirely  
from Boisduval's figures of H. athena (Syn H. cernes) in not only size but also  
color & markings. (Saunders pl. I. 30 with Pl. 6. figs 8 & 10.)

Hab. U.S. (Meid.) Geo. (S&A)

Hesperia arpa Meid. P&S P. 2 p. 539. Bois pl. 68

Pamphila " Mor 13. Mor Syn. 117.

This insect is unknown to collectors (Edwards notes)

Lar. Pl. 13  
fig 24. Pl. 1/2 fig Ins. Pl. 5  
fig 10. 16 Bois

Hab. U.S. (Meid.)



alternate

*Hesperia alternata* G & R to A & S 1 pl.

Heid 0. Mor 0.

Ind pl.  $\frac{29}{fig 6}$  Md.Inspe  $\frac{9}{fig 9}$  ♂ coll of M. G. R.

Hab. Md (S G)

*Hesperia arago* B & L pl 76. Heid 0 Mor 0.*Pamphila arago* Mor Syn. 118.Ind pl.  $\frac{F}{fig 23, 24, 25}$  Vols figs.Hab South<sup>n</sup> St. (Mor Syn)

two spots.

*Hesperia bimaculata* Grote Ann Lye nat hist N.Y. vol 18 pt. 1867 Heid 0. Mor 0.Ind pl.  $\frac{G}{fig 2}$  coll of Mr Grote.

Hab Atlantic dist (phil) Grote,

note "readily distinguished by its whitish fringes &amp; the simplicity of its markings" G.

*Hesperia hanna*.

Sp fm Mr Lintner Coll.

I.  $\frac{V}{1}$ .*Hesperia taumas* ♀

Sp fm Mr Lintner Coll.

I.  $\frac{V}{1}$  6



*Hesperia . dacotah. Coa. ♀*

*J. 20*  
*2.*

*Sp. fm Tent. to be closer exp.*



*Argemone mexicana* L. (Papav. 25. 87.)  
*Argemone mexicana* L.

fuscous color

*Hesperia fusca* G&R. Tr A&S. 1 p. 2. Meis. v. Mor. 0.

Insect not uncommon in Canada (Saunders notes) Ins pl. G

Hab Geo. Fla (G&amp;R) Can. (Saunders)

fig 7. coll of Meis. G&amp;R.

*Hesperia hobomok* Har. Meis. P&S.P. 2. 539. Mor Syn 110. Har. 3/4. Billings Can Ent 1/46  
 Pack Guide 269  
 {ant. June 27 he is in the egg shell at the center above } Ins pl. 34  
 {grab on the inside of the leaf, near the joints, & away from the } fig 6. Meis.  
 {of the leaves together, with strong yellow threads. Saunders }  
 Hab Mass. (Mor Syn) Md (JG) Can Ent 1 p. 66 Guide 270  
 Can. Saunders Man (Har) " prob. ♀ of *Pachontia* (Saunders note)  
 July, (Can Ent 2 p. 8)

Food plant Grass. (Saunders)

*Hesperia huron* Edwards P&S.P. 2 p. 16. pl 1 fig 1 & 2. Meis. P&S.P. 2. 539. Mor 0.  
*Huron* Skiffner Reakut P&S.P. 6. 150.

Ins pl. G  
fig 1 & 2. Edwards fig

Ins pl. 37

fig 8 &amp; Meis. Edwards notes

Hab Illin Geo. Texas. G&amp; (Edwards) Rly Mtns Color (Reakut) Md (JG)

v. 98 Sanborn

Saunders Dr. Post Soc Nat Hist. XI. 330. 84 Billings Can Ent 1/46  
*Hesperia leonardus* Har. Meis. P&S.P. 2 p. 540. Mor Syn 110. Har. 3/4  
 Leonard Skiffner

Ins. rare specimens have been taken on *Thistle* flowers  
 at London Canada the last of Aug & beginning of Sep  
 Saunders notes

Ins pl. 23

fig 7. 8. Meis. coll of Mr Sanborn

Hab Mass (Sanborn) Can rare (Saunders) Mass (Har)  
 Can July (Can Ent 2 p. 8)

*Hesperia logan* Edwards {P&S.P. 2. 18} & Tr A&S 1. 288. Meis. P&S.P. 2. 539.  
 {= PC 1 fig 5 }

Ins pl. G

fig 6 & for colored Plate  
ant by Mr Edwards

Insect not uncommon in Canada (Saunders notes)

Hab Mich Pa Va. (Edwards) Can. (Saunders) N Eng (Sutton Check list 7.)

Saunders Dr. Post Soc Nat Hist. XI. 334 & 84  
*Hesperia massasaix* Scud. Pro Essex Inst 1863. Meis. P&S.P. 2 p. 541. Mor 0.

Hab U.S. (Meis) Mass. (Sanborn)

Ins pl. 23

fig 1 &amp; 2. Meis. coll of Mr Sanborn

*Hesperia metacomet*. Meis. P&S.P. 2. 541. Mor Syn 111 Har. 3/4 Billings Can Ent 1/46  
 rura Edwards Tr A&S 1. 288  
 July (Meis)

Ins pl. 23

fig 1 &amp; 2. coll of Mr Sanborn.

Hab Mass. (Mor Syn) near London Can. rare (Saunders) Va Kansas. Illin (Edwards)  
 Mass (Har)

*Myrmecopus nummifer* Fab. Lintner 23 Ann Rep  
1845 Catant vol his. 32.



*Hesperia mystic* Scud. Edwards P&SP 2.16 pl 1 fig 34. <sup>Billeys Can Ent 1/46</sup> Meid 1<sup>st</sup> P&SP 2.540 Mor 0.  
 Egg 20. June lar hatched 28<sup>th</sup> & feeds on Grass (Saunders) <sup>Can Ent 1863.</sup> <sup>Can Ent 1868 271</sup> <sup>In pl II</sup> <sup>figs 2. 3. for fig by Mr Edwards</sup>  
 Hab. Can. west. Comt. Mich. (Edwards)  
 #a Halcyon (Can Ent 1.12) Can. to Mex (Pack), Lar Habits same as. H. hobomok Good plant Grass.

humitor {mexico  
 " {canada

*Hesperia humitor* Meid P&SP. 2 p 540. Mor (Lab) 13 Mor Sep. 120.  
 " <sup>humb</sup> } Meid syn  
 " <sup>marginatus</sup> } <sup>In pl 30</sup>  
*Heteroplerus marginatus* Har. p 308. } <sup>Scudder P&SP Sec 2</sup> <sup>fig 8. Me</sup>  
 { <sup>not this XI. 358. 84</sup>  
 Ordered Skiffper Har. } <sup>In pl 31</sup>  
 { <sup>fig 6. dark var Me.</sup>  
 Its has been taken near Niagara Canada (Saunders notes) Common (Me)  
 antennae not hooked at the end. Good plant { *Lepidodera capitata* (Scudder Am Nat) }  
 Bush clover Aug 1869  
 Hab Md. " Canada (Saunders)

*Hesperia melane* Edwards Tr Ultra Ent Soc L. 11

Hab Calif

H. sp. in h. m. ...



conspicuous or  
easy to be seen }

*Hesperia conspurcator* Edwards PESP 2.17 pl 5 fig 5. Head PESP 2.539

Ins pl I  
fig 2. Edwards fig.

Hab Mich (Edwards)

*Hesperia garita* Reak. PESP 6.150.

Head 0 Mor 0

Hab Rocky Mtns. Color. (Peak.)

*Hesperia Kiowa* Reak PESP 6.150

Head 0 Mor 0.

Hab Rocky mtns. Color. (Peak.)

spotted

*Hesperia maculata* Ws (Montan.) <sup>Edwards</sup> PESP 4.202. pl 1 fig 6. Head 0 Mor 0.

Ins pl I  
fig 16 Edwards fig

Hab New Orleans. (Edwards)

*Hesperia mandan* & Edwards PESP 2.21. pl 5 fig 1. Head PESP 2.540 Mor 0.

Ins pl I  
fig 3. Edwards fig

Hab Lake Minnipeg (Edwards)

*Hesperia mingo* n Edwards PESP 6.206 Head 0.

Hab West Va

*Hesperia napa* (Ridings, Edwards PESP 2.202. pl 1 fig 3.

Colorado. (Edwards)

Ins. pl I  
10. & I  
18.0. Edwards fig

memoria of the group

*Hesperia nemoris* Edwards PESP 2.547 pl 1 fig 1 Mor 0.

" Samoset. Scudder P. Essex Inst. 1.163. Head PESP 2.541

Ohio (Edwards)

Ins pl I fig 11. B. Edwards fig

note. This is said to be H samoset of Scudder.



*Hesperia nortonii* Edwards Tr. A. E. S. 1. 288. Mich. C. Mor. C.  
Norton's skipper

Hab. New Orleans (Edwards)

*Hesperia ocala* Edwards P. E. S. P. 2. 21. Mor. C.  
ocala Mich. P. E. S. P. 2. 570

Hab. Gro. Fla. Texas (Edwards)

*Hesperia oileus*? Saunders Mich. C. Mor. C.

Specimen from Mr. Saunders Can. very rare

In. M. H.  
fig. 1. London Can.  
coll. of Mr. Saunders

note *Pyrgus* (*Hesperia*) *oileus* is said to be a syn. of *P. oratus*, in *Weid. F. E. S. P.* (P. 36. 38)  
own plate 29 fig. 12. - which is an entirely different insect, what is it?

*Hesperia omaha* Edwards P. E. S. P. 2. p. 21. *Heakist* P. E. S. P. 6 p. 100. Mich. P. E. S. P. 2. 340  
omaha skipper

Pike's peak (Edwards)

*Hesperia oryza* Edwards Tr. Am. E. S. 1. 288. Mich. C. Mor. C.

Hab. New Orleans (Edwards)

*Hesperia illuc* N. S. Edwards P. E. S. P. 6. 206 Mich. C. Mor. C.

Hab. Kansas.

*Hesperia peekius* Harp. 315. Mich. P. E. S. P. 2. 570. Mor. Lyn 120. Har. 315.  
transulata. See pl. 33, fig. 9 & 5, fig. 14. Page 40.  
Reich's "skipper" *peekius* Can. Ent. 2 p. 8.  
In on flowers in meadows July Aug (Mass) In. pl. 16  
fig. 12. Mr. Redings Coll.

Hab. U. S., Brit. N. Am. (Weid.) Mass (Mor.)  
Can. July (Can. Ent. 2 p. 8)

*Hesperia unca* H. Pamphila  
H





Palmka Florida

*Hesperia pilatka* Edwards Tr. Am. Ent. Soc. 1. 287. Meid. o. Mor. o.  
*Pilatka* Skipper

Hab Fla. Edwards

*Hesperia phyllaeus* Meid. P&S P. 2. 540.  
 " *Phyllaeus* Mor (P&S) 13. Mor Syn. 118. B&H pl. 78.

Lar. pup. pl.  $\frac{B}{18}$ . B&H fig. Ins pl.  $\frac{F}{26.27}$ . B&H fig.

Ins pl.  $\frac{29}{fig. 7}$  Md. var.?

Hab Md. F&amp;S

*Hesperia pontiac* Edwards P&S P. 2. 17. Meid. P&S P. 2. 540

Har. Mich. (Edw.)

small dots? *Hesperia punctella* W. G&R Tr. Am. Ent. Soc. 1 p. 1 Meid. o. Mor. o.

Atlantic Dist. Geor. G&amp;R.

*Hesperia poeakontas* F. Scudder. St. Essex Ins. 1. 1863. Meid. P&S P. 2. 441. Mor. o.  
 " *quadraginta* Soud

Ins pl.  $\frac{29}{fig. 5}$  Md. Ins pl.  $\frac{G}{15}$  Yale coll. of Mr. Dodge

Hab Conn. (Dodge) Md. F&amp;S Can. rare (Saunders) Billings

note " *Poeakontas* is probably a dark var. of *H. hobomok* ♀ (Linniers notes)

\* a specimen of *H. poeakontas* was taken paired with *H. sabulon* pl. 3 fig. 15. by Mr. Chas. Dodge

*Hesperia ridingsii* Wb. Peckitt P&S P. 6. p. 131. Meid. o. Mor. o.  
*Ridings* Skipper

Rky. N. W. Color. (Peckitt)

*Hesperia sassacus* Meid. P&S P. 2 p. 541 Mor Syn. 110. Har. 315

♀ taken at Cambridge Tenn. - Har

Ins pl.  $\frac{29}{fig. 35}$  2 ♀ Mass. coll. of M. Sanborn

Hab Mass. (Sanborn)

Wm. Lusk (to) Dec. 28, 1852  
and to 1853.

*Hesperia samolus* Scudder Pr Essex Inst 1. 163. Meid PESP. 2. p. 541 Mor C.  
 united with *Hesperia hegon*, by Scudder. Pr. Ent. Soc Nat Hist. XI. 380. Stn.  
 which was described as distinct in one of his previous lists. See R.A.C. 1869. 18.  
 It is this not the same as *Hesperia* Edwards. (See remarks p. 40.)

vernal or  
 belonging to the spring

*Hesperia vernalis* Ridings coll.  
 Spring or vernal Skipper

Ins pl. 14  
 fig 7. Ridings coll.

is not this the

*Hesperia verna* Edwards. P.A.N.S. 1a. 1862. Meid PESP. 2. 541  
 Scudder Pr. Ent. Soc Nat Hist XI. 380. 54.

traveller

*Hesperia uator* W.S. Edwards PESP. 4. 203. pl. 1. fig 6.

Ins pl. 8.  
 fig 17. Edwards fig

hab. Illin N Orleans Edwards.

of the road

*Hesperia vialis* Edwards P.A.N.S. Phil 1862 Meid PESP. 5. 451. Scudder P.P. Ent. Soc Nat Hist XI. 380. 54.

Ins pl. 14  
 fig 10. Coll of Mr. Saurborn  
 (Mr. W. Hampshire)

Hab. New Hamp (Saurborn.)

\* *Hesperia vitellus* Meid PESP. 2. 541. Mor (Sm) 13 Mor Sepn. 120. S. & pl. 17. B. & L. 75.  
 " *lonnyis*. *phocion*. *lucethalus*. Synonyms (Meid)  
 Brown bordered Skipper S. & L.

LP. pl. 13  
 16. S. & L. fig

Lar folds the leaves together for shelter & protection

Pop. July 27 (Geo)

Ins Aug 4 (Geo)

Ins pl. 8  
 11 S. & L. fig.

Food Cockfoot panic or barn yard Grass  
 & Buffalo grass. (S. & L.)

Hab. U.S. Cal Am Mex. (Meid) Geo. (Morris)

\* This insect is unknown to Mr Edwards (Edwards notes)

*Hesperia transetta* Harris 141. Meid PESP. 2. p. 541. Billis. Cal Ent 1/46  
 " *heckius* syn. Meid (See pl. 14 fig 12. page 40) Mor Sepn. 111. Har 318 Pack guide 270

" hardly differs from *Peckius* except in being uniformly Ins pl. 33  
 smaller a very common ch. than found in meadows. fig 9. Mid. & G.  
 in Aug. (Harr) Har. 318 The Yale Coll. Mr. Dodge coll.

Hab. Mid (G.) Conn? (Dodge) Can common (Saurborn) Har (Harr)

Egg. July 10. larva hatched July 24. (Saurborn) Pack guide 270  
 Can Ent 1/46

L. habits same as, H. hibernica, see p.

Food plant Grass (Saurborn) (40)

*Heperia* comma. (B<sup>100</sup>) Edwards note.  
 sylvarum.

Ans. taken in South Calif & donated by  
 Dr Chas Smart USA. Mrs J. C.  
 Aug 15.



*Hesperia* *W. Kulla Edwards Tr Am Ent Soc 2. 311.*

*Hesperia* *capitata Edwards Tr Am Ent Soc 2. 311*

*Hesperia* *raco. W. S. Edwards Tr Am Ent Soc 2. 122.*

Only one Specimen sent from Texas by Dr Lenceum  
to Dept. of Agriculture. named & described by Mr Edwards

Ins. pl. H  
fig 10. Texas.

Hab Texas

*Hesperia* *myandot Edwards PESP. 2 p 21. their PESP. 2 p 570.*

Ins. pl. I  
1 p. Mr Edwards fig

Hab Long Island. Washington DC. Edwards.

*Hesperia* *Yreka W. S. Edwards PESP. 6. p 208.*  
*Yreka* their PESP. 2 p. 571.

Hab. San Francisco Calif. Edw<sup>d</sup>

*Hesperia* *Lalulou their PESP. 2. 570. Mor Syn. 116. Mor cat. (BHL) 13. BHL pl. 76.*

Ins. pl. F 4 <sup>29</sup>/<sub>37</sub>  
fig 17. BHL fig fig 3. Mcd.

Hab. Md (FG)

\* Ins. pl. I  
fig 15. Mcd. coll of Mr Dodge.

\* note. This insect pl I fig 15 was taken paired with *H. poconulus* pl 29 fig 5  
by Mr Charles Dodge.

*Hesperia* ?

Lar. pl. 19 fig 9. Ma Sep. & Lar. pl. 19 fig 11 Ma Aug.

Feeding on *Hollyhock*.

*Hesperia* ? u

Ins. pl. 35 7  
fig 9. Mcd

Food unknown

*Hesperia* ?

1 or 3 sp brought by Dr Palmer from the  
border of Arizona & N Mex. 1869.

Ins. pl. 8  
fig 1

Hab. Arizona N Mex (Dr Palmer)



*Hesperia quodrigui*

near La Pochontas

Scudder P. B. Soc. Nat. Hist. XI. 380. 84. 1880  
Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug 10<sup>th</sup> 1869  
said by C. S. Minick to be the same in  
P. B. Soc. Nat. Hist. XI. 320

*Hesperia mingeia*

Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug 10. 1869

*Hesperia acmocolus*

Mass.

Scudder P. B. Soc. Nat. Hist. XI. 380. 84.  
Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug 10. 1869  
near Manatagua. P. B. Soc. Nat. Hist. XI. 319

*Hesperia manatagua*

Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug 10. 1869

*Hesperia oreke*

Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug 10. 1869

*Hesperia metea*

Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug 10. 1869  
described by C. S. Minick in P. B. Soc. Nat. Hist. XI. 319.

*Hesperia monceus*

*Hesperia* ?

Scudder P. B. Soc. Nat. Hist. XI. 380. 84  
Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug. 10. 1869  
Dr Palmer. St. Thomas. Utah. Ins. pl. 9/16

*Hesperia Hionna*

Mass & N.H.

Scudder P. B. Soc. Nat. Hist. XI. 380. 84.  
Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug 10. 1869  
near H. punctella. Scud.

*Hesperia francoquin*

Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug 10. 1869

H. Maine

*Hesperia menapano*

Scudder P. B. Soc. Nat. Hist. XI. 380. 84. (near H. mandan)  
Scudder list of desiderata Lar 9<sup>c</sup> Boston Aug 10. 1869

*Hesperia poweshieki*

N.S. Riley Am. Ent. 2. 271  
agrees in some striking points with H. alternata (C. S. R.)  
Grinnell Iowa Trans. 21. 1879.  
Ins. pl. 9/16 from Coll. of Nat. Hist. N.S. vol. 10

*Hesperia* ?

1. sp. brought from borders of Arizona & Mex  
by Dr Palmer. 1869.

Ins. pl. 9/16  
19. 10.

Hab Arizona

Med. Dr Palmer

*Hesperia* ?

1869 brought to Dept. by Dr Palmer  
from bor. Ariz. & Mex.  
(C. S. R.)

Ins. pl. 9/16  
19. 10.

*Hesperia arene* N.S. Edwards.

brought by Dr Palmer from border. Arizona & Mex. 1869.

Ins. pl. 9/16  
19. 10.



Specimens of the type, wanted as mentioned in work cont. P. 1st.

but not figured

*Taphia brevicauda* n. sp.  
" *mutulus* Reak  
" *saunus* "  
" *barbii* Edwards  
" *indra* - Reak  
" *pidimus*  
" *minoria*  
*Peruastis* *carius*  
" *haman*  
*Eptalis* *molle*  
*Neophasia* *monasia*  
" *terlocii*  
*Picus* *frigida* Leud.  
" *nulda* Edwards  
" *nasutus*  
" *occidentalis* Reak  
" *guska* "  
" *seuosa* Leud.  
" *marginata* "  
~~Antennaria~~  
~~Antennaria~~  
*Colias* *labradrensis*  
" *hatter*  
" *interior* Reak  
" *occidentalis* "  
" *seuiderii* Reak.  
*Peratonia* *lycaste* "  
*Mechanitis* *californica*  
*Argynnis* *coronus* Edwards  
" *montivaga* "  
" *infestus* "  
" *cidaste* "  
" *terone* "  
" *oglaia* Reak  
" *edwardii* "  
" *foya* - *mid*  
*Melipotis* *bernsii* Edwards  
" *chrysa* & *arachne* Edwards  
" *lana* & *aranea*  
" *fulchilla*  
" *pecharii* *saun*  
" *editha*  
" *isomeria*  
" *ancica* *winteris*  
*Chesca* *leuquah* Reak  
" *hathida* "  
" *mata* "  
" *proclia* "

*Melipotis* *mutata*  
*Trifolia* *creas* & *satyrus* (Cal)  
*lausta* *umbrosus*  
" *leucis*  
*Dryas* *myrio*  
*minis* *minimimix*  
*Chesca* *maucius*  
" *vesagus*  
*Chionobas* *neo adensis* *leui*  
" *adleri* Reak  
" *chrysis* "  
" *calais* *son*  
*Enadria* *lythostis* Reak  
" *ariadne*  
*Satyrus* *redingii*  
" *polixenus*  
" *sthenos*  
*Nucalis* *stiva*  
*Phyma* *fulvula* & *brenda* (Reak)  
*Lemonis* *mormo*  
*Phila* *raphe* Reak  
" *collus* (prob. *secta*)  
" *lorato* & *chalcis* (Cal) & *calais*  
*Lycarna* *nistica*  
" *anna*  
" *melita*  
" *lycea*  
" *ocho* & *horas* (Cal)  
*Polyommatus* *castro* Reak  
" *anthubasto*  
*Prasinodes* *pygmaea* *Leud.* p. 36.  
*Calopha* *janita* Reak  
" *leuach*  
" *munji* Edwards  
" *horlonii*  
" *coala*  
" *smaha*  
" *arkya*  
" *stae*  
" *samoet*  
" *brecha*  
" *plathia*  
" *pontioi*  
" *punctilla*  
" *redingii*  
" *pygmaea* (wov)

*Argynnis* *peruquena* *son*  
" *longina* "  
" *nauroctus* "  
" *manatanga* "  
" *Onkii* "  
" *lutea* "  
" *manoca* "  
" *herone* "  
" *maripano* "  
" *frankenh* "

& *Calais* *longis*

Ed. 1870







Gen. Sp. Spilungidae distinct to capsule morph.

Uroclastus lucidus

Seda axillaris Fox GHR

Allopus latialis <sup>uniflorus</sup> <sup>dist. 1869, 1871</sup>

Euprosopus phactor

Proserpinus clarkiae

Chorocampa proem

Smurritus atylus

" corisii

Microbia brevis

" leucophaea

Sphura lugens

Hylotus bonnyoides

Aegnidae

Melittoid Salixenymus

" ceto

flavifrons

ochelium apiforme

" dimidiatum

" marginalium

" basiformis

" caudata

" emphytomis

" fulvipes

" geliformis

" hylotomiformis

" obscuripennis

" piccaeformis

" pyramidaliformis

" pyramidalis

" sapygaeformis

" scutula

Remodorus maculipes

Thyridae

Asioidea oculatana

viluina

aequalis

Ligaeidae

Horama texana

Lamochoris fortleyi

Syntomida ipomaeae

Acloctus coracinus

Proctus multimanus

Ligaeidae cont.

Scypsis parkardii

Clanucha ochrocephala

" multifaria

Moshaela hopfferi

" latipennis

Anatolus grobei

" aequalis

Aydoria aurivilla

" nobilissima

" luncea

Bomb. spec. 60.  
contn?

# Arranged from List of the Lepidoptera of North America

by Aug R Grote & C T Robinson Philadelphia Ent Soc. Sep 1868.

The following marks are used in this list — after a species indicates that it is unknown to the author who are therefore not responsible for its value as a distinct species

|| signifies that the name has been previously employed for another species

± denotes erroneous denominations

↓ shows that the name to which it is placed is not entitled to acceptance owing to its not having been accompanied by a description at the time of its use

Greek letters are employed to distinguish forms which are considered races of the preceding species G.R.

## Hummingbird

large robust slender body long wings exceedingly long antennae bristly terminated by a little thread or further labial palpi broad compressed, labrum & mandibles minute, max palpi minute, legs long acute behind wings especially hinder hairy

calypterous, naked cylindrical, 16 feathered & generally have a dark horn on the 11th segment. Tails, naked, conical & often feathered with a detached horn in which is the dorsal bristles directed outwards

apertures clear, violet back.

## Sphingidae

Hawk, or Humming bird Moths

### Macroglossini

Urotonotus lucidus Bois. G.R. cat.

larva scale  
eggs a small moth.

yellow striped or variegated

Lepidoclis flavofasciata Grote & Robinson 5. 39. 171. Mor 17 Mor Syn. 39. & 171.  
Macroglossa Walk. C.B.M. p. 8. p. 87. 1858. Clemens Syn. 12. 131. 1859

Hab. Anderson Bay (Mor.) Can (Mor. Syn.). Can. Can. Ent. 1. 10.

Insects. pl. 72. 2 from original sketch sent by G.R.

Sesia uniformis G.R. & Robinson 23 Feb. 1868. 1868. Exx. 1868. J. C.V. 2. 1868. 1868.  
republicans of Walker May 25

eggs a small moth.

Sesia (Fal) thetis G.R. & Robinson 5. 39. 171. Am. & Lepidop. No 3 p. 3. & G.R. & Robinson 1 p. 325. p. 6. p. 36.  
Macroglossa " Bdr. Mor. 0. Mor. Syn. 0.  
Sesia Clear wings Newman. 13

Insects distinguished by their clear wings & fan like tails

Insects. pl. 92. 2 G.R. fig

Hab. Calif. (G.R.)

note "differs from S. diffinis by coloration of body & narrow edging" (G.R.)

Sesia " Clear wings fly during the day time; but the brightest sunshine hovers over flowers, which they hover or sweep on means of their long, longer which when uncurled is curled up under the wing.

Hornet G.R. com. Bithum & Nova Scot. 2/75. Packer guide 277.  
Sesia diffinis (Hornet) G.R. & Robinson 3. Mor. (Bdr.) 17. Mor. Syn. 148. Clemens 139. Har. 328.

Macroglossa " Bdr.

Sphinx fuscipennis G.R. & Robinson 5. 39. 171.

Lar. fusc. pl. 6. fig by S.R.

lar described Can. Ent. 2. p. 158

Humming bird Hawk Moth G.R.

Insects. pl. 48. 11. Md.

(Macroglossa) S. fuscipennis of Europe. a broad butterfly, one of the most common of the day. It is found on the leaves of the snowberry & the upright Honeysuckle (Lonicera tartarica) " fed on leaves of snowberry & upright Honeysuckle (Lonicera tartarica) " (Mr Kirkpatrick Cleveland Ohio P.E.S. 3 p. 13) by S.R. said to feed on (Amsonia tabernaemontana) alternate leafed Taberna montana.

Tep. formed on the surface of the ground in an imperfect cocoon  
Insects. pl. 48. 11. Md.  
It hovers over flowers like a humming bird in the day time sucking the nectar & is frequently mistaken for a humming bird July Aug & Sep (Md)

Food plants. Snowberry (Saunders) upright Honeysuckle (Kirkpatrick) & alternate leafed Taberna montana. (G.R.)

Hab. North & South U.S. (Mor. Syn.) Can. (Saunders) Md. common (S.R.) Nova Scotia Bithum





*Sesia ipomea* - fm Harris collection in Cabinet of Boston Soc Nat Hist  
(labelled Georgia No 542. Dr. Rmler. Inds.)

191

Hab Georgia

See Syntomeida p 58

Ind. pl 105  
fig 3. Bot. Soc Nat Hist.

*Sesia axillaris* GHR 3. GHR Tr Am Ent Soc. 2. 1880 Mor 0.

Hab Texas.

GHR from a study of this species reduce. *Haemorrhagia* to the rank  
of a subgenus. - RAE. 1869. p 14

*Sesia* ?

Fy from an original sketch kindly lent by Mr Edwards taken at Newburg NY.

"*Sesia* (*S. bombiformis* V. Europe) caterpillars slightly below when  
about 10 days old they have several subcostal lines upon each segment  
of the abdomen that entirely disappear when they are full fed. The  
full grown caterpillar is evidently *spingoides*." Med 2. 366

Food plant,

See pl 96

fig 13. Edwards figure

Willow.

*Palaepolya*  
*haemorrhage* or *bleeding*  
*gracilis*

*Haemorrhagia* (GHR) <sup>gracilis</sup> . RAE <sup>3083</sup> GHR. PESP 5 p. 174 pl 3 fig 1 & 2 Mor 0

Inds. from an original drawing kindly lent by Mr Grote

J. May 25. 1869. NY.  
Lent

Hab. Can Mex (GHR) (Walker) Can. (Can Ent Soc. 1 p 10)

Ind. pl 70  
fig 3. Grote

Buffalo.

*Haemorrhagia buffalensis* GHR 3. GHR Lye. Nat Hist NY. Vol 8. 1867. pl 16 fig 17. 2.  
*Sesia*. Linnae 1869. NY. (Sep. 19 2 mature)

Ind. pl 78

fig 17. 2 18 B. fm plate of GHR.  
on *Verbascum*. (Linnae)

Hab. NY.

*Haemorrhagia Thysbe*. (Fab) GHR 3. Mor Syn 149. Bethum Jr Nova Scotia Ind. 2/8.

? *Sesia crinitiformis* Steph. Haeor sphingidae 308.

*Sphinx pelias* Cram.

Ind. pl 43

*Sesia*

Mor (Fab) 17. Har. 329.

Clem. 124.

fig 10 Md.

Humble bee hawk Moth. Can nat. (Green) 263.

Lar 7. described PESP 3. p 646. by Mr Linnae & feeds on Snowball *Verbuminum* Aug 1869 }  
pupa formed in an imperfect cocoon made of a few leaves }  
drawn together by a very slight spun web. }  
Inds. wings reddish brown  
with hyaline dusks. tail tufts.

Inds. hover over flowers in the day time like a humming bird & frequent  
flowers of Phlox & Lilac "not very common in Canada". (Saunders notes.)  
Aug 7. Md (P.S.) "Inds abundant flying in the hot sun about the lilac  
& Rhodora candida" (J. June 1. NY. Linnae 1869)

Hab. Mass Can N.Y. No Pa. (Clem) Can (Saunders) Md (G) Athabasca River July. Gr PESP 3. 74  
Can (Can Ent 1. 10) Nova Scotia (Bethum)

Inds. described by Dr. Fitch (Can Nat & Geol 1859 p. 122) Food plant Snowball }  
as given forth by a larva & not sticking out "as in the case of the species of *Verbuminum* opulus." }  
a larva or cat. which he attributed to the reproductive organs of the caterpillar }  
death head moth. eats a similar larva (Bethum Can Ent 1. 41)

Florida

*Haemorrhagia floridensis* GHR 3. GHR Lye Nat Hist NY. Vol 8 1867. pl 16 fig 16. Mor 0.

Ind. pl 78

fig 16. fm Plate of GHR.

Hab.

*Haemorrhagia* .

Ind. pl 102  
fig 5.

Ind. sent in collection of Smart.  
taken in South California

(41)



"Lethocrota swift"

*Allopius* (Hüb.) *litan* (Hüb.) GFR 3.*Sphinx litan* Cram*Macroglossa* " *Swains*\* " *balleata* Rutland  
" *tantalus* Mor. Syn 151.Ins pl. 75  
fig 7. Coll Ent Soc PhilHab. Atlantic & Tropical Insular District (GFR PESP 5 p. 150.) Ins. pl. 105. fm sp in coll. of  
Can. (Can Ent 1. 10) fig 11. Bath Soc Nat Hist\* *Tantalus* of GFR list is a distinct species see below. & also GFR Cat Am Sph. PESP 5 p. 150*Allopius. tantalus* Hüb. GFR 3. G. PESP 5. p. 42*Sphinx tantalus* Linn.*Sphinx zonata* Housyfm. Sp so labelled in the coll of the  
Boston Soc'y. of Nat HistoryIns pl 105  
fig 9. } Bath Soc  
Nat Hist

Hab. Tropical Insular district (GFR PESP 5 p. 150.)

*Tantalus* of Mor Hab. S.A. Mex. West Ind. Texas Ohio (Clem in Mor Syn. p. 151.)so well *Proserpinus**Euproserpinus* (GFR) *proctori* GFR. To D.E.S. 2. 182.

Hab Calif.

'erris' myth name  
*lugubris* mourning.*Onyxo* (Hüb.) *lugubris* (Hüb.) GFR 3. G. Clem 139. Mor (Brady) 18. Mor Syn 162*Sphinx* " (Linn) S & A pl 30." *pegeus* (Cram)

Long tailed Hawk moth. S &amp; A

Lar pl. C Ins pl 45  
fig 4 S & A fig fig 9. fm S & A figLar feeds on Virginia creeper (S & A) Ins pl 39  
fig 2 Md. fig 10 Coll Ent Soc Phil

Pupa formed in Aug (Geo)

Ins. Sep - It flies swiftly in the evening making a noise like  
a humming bird. The tail of the male is spread out  
like a fan (S & A)

Food plants - Virginia creeper (S &amp; A)

Hab Geo. West Ind. S. Am. Mex (Clem) Md (S &amp; A)

*Opepos* around  
shrub- Har Gr 284. Am Ent 2. 123. x  
*Thyreus* (Swainsow) *abbotti* (Swains) GFR 3. Clem 135. Mor 18 Mor Syn 166. Pack Hawk 276.  
Abbott's *Thyreus* Riley 2. Sep. 75.Lar dirty yellow, shaded brown black spot on top of tail (Riley) Proc Ent 12. 301. - grape  
its position is not *Sphinx* like as it shortens the anterior wings Lar fig 28. 3  
& throws its head from side to side making at the same time a  
creeping noise (Mor Syn) S & A Lar different color 2. 99. fm  
12. 18. 20. 23. 26. mottledPupa formed on or near the surface of the ground 12. 18. 20. 23. 26. mottled  
Ins. appears the following spring. - it "has been taken at Hamilton Can  
but is very rare." Saunders notesIns. Mch & Apr. (Missou) Only one Food plant - Virginia Creeper Mor Syn. fig 12 fm sketch by  
brood each year (Am Ent) " " Grape (Wollen) & Riley To Ent 12 304)  
" " " " " "Hab W.V. Pa. In Mass. Ohio. (Clem) Md (S & A)  
" Canada very rare (Saunders) N.H. Missouri rare. Am Ent. Can (Can Ent 1. 10)

Lar fig 18. when it shed its skin changed to fig 23. in color &amp; markings. (42)





Where place?

Calif.?

*Eupyrishoglossum ceculus*. Cram. Mor O. G&O.

Spec in cabinet of Boston Socy of Nat History  
labelled as from California

195

Ins pl 105  
fig 10 B.S.N.H.

Author Myth name *Amphiox* (Hüb) *nessus* (Hüb) G&O 3. 6 Car Cer. 247.  
*Sphinx* " " (Cram)  
*Thyreus* " " Clem 186. Mor (Cram) 18. Mor Syn 157

Ins is sometimes attracted by putrid carnosae } Ins pl 42  
Belthug Can Ent 1. 48. } fig 7. Ma.

(9. May 25<sup>th</sup> NY. Linnae 1869.)

Food plants. Grape Virginia Creeper &

Hab. Can. Mass. N.Y. Pa. N. Hamp. (Clem) Ma (S&G)

" South & west Canada but nowhere common Saunders notes. (Am. Can Ent 1. 10)

teris (?)  
written upon

*Leidamia* <sup>(Cram)</sup> *inscripta* (Clem) G&O 3. Mor Syn. 159. Clem 187.

*Pterogon*? *inscriptum* Har.

*Proserpinus* " Mor 18.

Lar pl 25  
figs 26. 27. Edwards drawing

Larvae figured from an original drawing kindly  
sent by Mr Edwards.

Ins pl 44  
fig 18. coll of G&O.

Ins pl 52  
fig 2. Ma.

Hab. Indiana Long Is. Pa. N.Y. (Clem) Md S.G.

(inscription written upon.)

*Proserpinus agasie*?  
*Proserpinus*, to approach  
or draw nigh.  
*gaura* a plant.

*Proserpinus* (Hüb) *gaurae* (Hüb) G&O 3. Mor (S&A) 18 Mor Syn. 158.

*Sphinx gaurae* S&A. pl 31.

Olive shaded Hawk moth S&A

Lar pupa pl C  
3 S&A fig

Lar feeds on *Gaura bicoloris* S&A.

Ins pl 45  
fig 10 m S&A.

Pupa formed enclosed in a web on the surface of the earth.

Ins. flies swiftly by day & extracts the nectar from  
flowers in June (Cra) There are said to be 2 broods  
annually in Texas.

Food plant *Gaura bicoloris* (S&A)

Hab. Geo. (Mor cat.) Texas (Mor Syn.)

*Proserpinus* *Clarkiae* Clem. G&O 3.

*Pterogon* " Bdo.

*Perizonia* (Baird) *lusca* Fab. Morris Synopsis of the described Lepidoptera  
of North America p 160.

Hab. Mex S. Am. & Med Ind. (Mor.) Baird also to occur in Texas?

Ins pl 105  
fig 7 for Coll. Boston Socy Nat Hist.



*Aralia nudiflora* (which men was like) } excrecences. } Darlington 1853 p 171

" " These excrecences are formed of the flowers of the plant instead of the leaves a closer observation has also led me to doubt whether insects have any agency in their production I find those succulent masses invariably to consist of what seems to be a droptical enlargement of calyx, corolla, stamens & pistil by which the floral organs are all consolidated or blended together their individuality & character entirely lost except some vestiges of anthers & stigma (Darlington 171)

*Xoïpos* } hog  
*xoïpny* } Colaptes

# Choerocampini

? *Darapsa*  
 a city in Baetria  
*Choerilus* name

*Darapsa* (Walker) *Choerilus* Walk; *GHK* 3. Clem 146 Mor 19 Mor 29 168  
*Sphinx choerilus* Cramer  
*Sphinx areolaris*. *SVA*. pl 27.  
*Choerocampa choerilus* Har 328. Har Cor. 283.  
 ♂ *Chus* " *GHK* vol 1865. P. 8 S. P. 5. 153.  
*Lar* pl 22  
 fig 14 fm *SVA*.  
*Ins* pl 42  
 fr 4 *Wied*.

Wild Honey-suckle Hawk moth *SVA*

Food plant *Onalea nudiflora* *V. viscosa*

Larva when at rest draws in the first 3 segments of the body & head (? 2 segments ?) which when extended give it somewhat the appearance of the snout of a hog, hence its Greek name (*Choerocampa*). Feeds May (Geo) on the *Onalea nudiflora* & *viscosa* or False Honey-suckles.

Pupa formed on the surface of the ground in an imperfect cocoon consisting of vegetable debris united by silken threads in May. Second brood in Sept. (Geo)

*Ins* appears the following spring - "near Toronto Can very rare" (Saunders)

*Cal.* Geo Const. Mass. *W.A.* Clem Can rare (Saunders) Geo (*SVA*) Ma (*SG*) Can Can Ent 1/2  
 ♂ *Chus* Hüb var. is preoccupied in Ornithology The species here cited under *Darapsa* are typical of the genus *GHK*

*Narapsa myron*.

Larva naked fleshy pale green or brown with a row of orange spots  
top of back. 6 or 7 darker oblique lines on each side & a short brown at  
extremity of body. head retractile & small. 4 or 5 ~~body~~ segments very large & swollen  
while the 3 anterior taper abruptly to head

Dis. olive gray.

hind wing; anal color  
green & ant. 2.50 to 3.00

fore wing & shoulders traversed with olive

(note Larva <sup>above</sup> very unlike my figure *examine*)

*Darapsa*  
a city of Basilio  
*myron* a Greek  
Shrew.

*Darapsa myron*. Walk GFR 3. Clem 148

*Sphinx myron* Cramer.

*Sphinx pampinotrix* S&C

*Otus anted* Hüb

*Darapsa pampinotrix* Mor (Sm) 19. Mor Syn 158

*Charocampa* " Har 327. Fitch To WY S Ag Soc 1856 vol 16 p 397. & Wiley 24 Feb. p 77. & Can Ent 2. 23.

*Otus myron* GFR Linn 1865. P&S P. 5. p 133. & c

Linn 1864. p 56

Lar pl 4  
var. fig 3 F Georgia S.C.

Lar pupa pl 5  
fig 16 206 & Saunders Rep. Trans. N. Y. Acad. Sci. 1870 p 95.  
fig 42  
fig 5 Md.

& Har cor. 283

Wild Grape Hawk moth S&C. Vine Gresser (Fitch)

Egg generally glued to underside of a leaf surface  
Lar. description Linn 1865 P. 5. p 163. destroy the foliage also nip off the stalks  
of half ripe grapes in July the second or full brood enter the pupa state

Lar. when about to  
transform, change to  
a pinkish brown color  
& forms on the ground  
in a mesh or cocoon of strong  
gray silk under leaves  
& rubbish  
Ins 2 brooded in Mo.  
for June July. & brood  
pass the winter in the chrysalis  
state & come out as moths  
in May. "Am Ent.

Parents *Sphinx* (Hab Pa to Geo. (Mor) Can (Saunders)  
Larva. fig 1 Har 327 (white) P. 6. Md (S&C) Mass. (Har) Can (Am Ent 1. 10)  
resembling *Charocampa* with *microgaster* (Am Ent 2. 23) Mo Linn of Albany thinks 9. 10ths of the larva are destroyed by a parasite.

variegated or of  
dusky colors

*Darapsa versicolor* (Clem). GFR 4 Mor (Har) 19. Clem 148. Mor Syn 169.

*Charocampa versicolor* Har 328.

*Otus* " GFR Linn 1865. P&S P. 5 p 153.

Larva pupa probably of the same the same habits  
as *D. myron* above mentioned

Ins. rather scarce in Md. this specimen being  
the only one taken in 3 years. Ins pl 41  
fig 5 Md

Hab. N.Y. Md. (S&C) Can (Can Ent 1. 10) Food plant *Aralia*?  
Button bush. *Cephaelis* (Can Ent 2. 128)

*Charocampa Duponchel* Proenc Clemens. GFR 4.

Scapes long  
narrowly calyculifer  
narrower than  
wings narrow or thin  
verses clean neat

Larva neat or clean

*Charocampa tersa* (Harris) Clem (Drury) 150. Mor (Sm) 19 Mor Syn 171.

*Metopius* Duncan

*Sphinx tersa* Linn. S&C pl 38.

Lar pl 2 Ins pl 41  
fig 15. Md fig 3. Md.

Lar pupa pl C  
fig 1. fig of S&C.  
Cecidomyia

Black & yellow underwing hawk moth, S&C. Caterpillars hog

Larva when not feeding & at rest contracts the first 2 segments of body & head  
& feeds on wild thyme & button weed July & Sep (Geo)

Pupa formed in an imperfect cocoon on the surface of the earth

Ins May & Aug. & observed by Smith & Abbott sucking the blossoms of the gourd.

Col fig 1 is evidently a *Charocampa* with marked head  
greenish white longitudinal line each to tip of head & back of  
white venter. & large spot on 6 & 7 seg.  
Pupa. whiteish above in young greenish with reddish  
bands from tip to body under wings yellow

Food plants Wild Thyme, Button weed. (S&C)

Hab. S.A. Mex. West Ind. Ellin Ohio (Clem)

Managal (Pach Rept Nat. Acad. 62)





Friday evening  
Pig. present

larva with black broad  
longitudinal line on which are large  
red white spots.  
a yellow longitudinal line below  
which are small dark spots.  
on black on the upper part  
longitudinally along with yellow  
red variable in color.  
Marbury 74.

Chlor. Green  
punches grape vine

Philadelphus

Labrusca

Labrusca

*Lelephila* Larva: "When disturbed they fall from their food plants  
shorten the anterior segments  
in a cell excavated from the surface, the tongue case of the pupa is not free

*Lelephila*  
w. robust antennae clavate neck of larva not retractile

*Lelephila* (Ochsenk) *chamaenerii* (Har) Bethum Tr. May Scot. Inst. 2/78 Pack quad 275  
*Lelephila* *gallii* ♂ Harb. SVR Tr. A.E.S. 1.75 G. & R. 4. Clem 144 Mor 20. Mor Syn 160.  
? — " *intermedia* Kirby Inse pt 39 Har. 328.  
fig 5. Md.

Lar. said to feed on the great willow herb. (*Epilobium angustifolium*)

Inse not common London Can but plentiful near Quebec. (Saunders notes)

note Hab. Europe Eng. Can. U.S. (Clem) Md (JG) Nova Scotia Food plant Willow herb.  
" *Lelephila intermedia* (Kirby) was described from an injured spec. & assumed to properly identified (G. & R.)

*Lelephila lineata* (Har) G. & R. 4. Clem 162 Mor (Feb) 20 Mor Syn 162 Harris 328.  
*Sphinx lineata* Fab. Syst Ent. 1775 not of his later works. G. & A. p. 39.  
" *daucus* (Cramer) SVR Tr. A.E.S. 2.76 Lar. pt 3  
*Lelephila daucus* (Stephens) fig 2. dk var Geo  
Lar pt 3  
White lined morning Sphinx. Harris Evening friend Inse pt 39  
fig 3. Md.

Larva for description see Lintner PESP 3 p. 662. the first brood in Pa. reach  
maturity about the middle of August. in Md. of all series from June to Sep.  
Pupa formed underground. The dark variety of larva was taken in Geo. on purslane  
in a cotton field. in a cotton field.  
In June & Sep. Geo. & found as early as 17th April in Va. it is "common"  
in Canada. (Saunders notes). & very plentyful in Md. (JG) & Va  
Hab. Md. Ind. Mex. Can. U.S. Food plants Apple (Clem) Buckwheat Water melon (S. & L.)  
Nova Scotia. Bethum  
"Purslane"  
N.Y. Va. Md. Geo. S.C. Fla. Miss (JG) An. Ind. 1. 205

Hab. Mex. West Ind. Can. U.S. to Calif. (Clem) Md. Geo. (JG) Can. (Saunders)  
Pikes peak (Grote PESP 3. 92)

Har Cor. 253. Am. Ent. 2 p. 64 fig  
*Philampelus* (Davis) *achemon*. Har. G. & R. 4. Clem 155. Mor. Drury 19 Mor Syn 177  
*Sphinx achemon* Drury | *Phlox crantor* Hübner Riley 28 Feb. 74. Har. 326  
*Sphinx crantor*. S. & L. p. 41. & Cramer  
Common Sphinx Fitch. Lar. pt 2  
fig 2. greenhouse grape Md Aug.  
Muscadine Hawks Moth S. & L. S. P. pt 1  
fig 1. Md grape

Lar. when at rest retracts head & 2 first segments Inse pt 39  
of body. fig 2. Md.  
Lar. when young has a horn on the tail or extremity of the body which is curled  
forwards like that of a dog. It sheds this horn at the last moult leaving  
only an eye like protuberance & has 6 narrow oval & callused spots on a  
green or brown ground. for description see Lintner PESP 3. 660.  
this caterpillar is sometimes very destructive to the foliage of the grape  
both in the open air & in greenhouses.  
I. appears May Geo. - it is said to be single brooded in the North but probably 2 broods in the South.  
Food plants Grape virginia creeper  
"Purslane" (Lintner)

Hab N.Y. Pa. Man. Har.  
Va. Md. common (JG)

Decorated on sides with brown oval & callused spots  
of cream color.  
I. reddish ash. 2 triangular patches of deep brown on thorax  
& 2 square on each foot under third joint. head with legs  
red spot in the middle. thorax ash. 2nd border behind

*Philampelus labruscae* (Mercom) Grote list O. G. & R. PESP 5 p. 62. Mor Cal. 18

This insect is placed here amongst the *Sphinxidae* of the U.S.  
altho. not in G. & R.'s list on the authority of Mr. West of Philadelphia  
who captured a fine specimen alive in street nearly opposite  
his own house Mr. Wood of Phil. also captured another in New Jersey  
Inse pt 75  
fig 6. coll. of Ent.  
Soc Phil

Hab Pa. N.Y. "Cuba" (Grote)

45















Fitch to W.S. Ag. Soc. 1866. vol 16 p. 376

*Immeranthus myops* (Har) L&P. 4 Clem 181. Mor (Sm) 20. Mor Syn 207. Har 328*Sphinx myops* B&A pl 26.*Immeranthus rosacearum* Bds.*Purblina Sphinx* (Lar)

Yellow underwing eyed Hawk moth, Sva. Chocolate Brown eyed Sphinx Har

Lar several were taken in Aug (Md) feeding on the Lar pl 21 pl 39  
wild Cherry. pl 7 pl 7 pl 7 pl 7Pupa formed underground (in Geo) June 8 Col (Sva) Lar pl 25  
Bds. 2 broods in the south the insect of the second brood appeared the pl 17 pl 17 pl 17 pl 17 original sketched by Mr Edwards  
following spring.Food plant Wild Cherry

Hab. Md (Sv) London Con rare (Saunders)

*Cressonia juglandis* "When the tree is struck or jamed any larva that may be upon the leaves gives utterance to a note resembling telp or toheep or in very notes between the thumb & finger a little behind the middle it flexes the body sharply from side to side with a simultaneous emission of the sound uttered to." J. G. Sanborn Can Ent 1. 48

*Stenanthus geminatus* & *exocentrus* when irritated make a similar noise  
 "noise produced by contracting the anterior segments thus }  
 "rubbing the granulations against each other (Ed. Meade NY. } P. S. Sprague. Boston Can Ent 1. 48 }  
 Can Ent 1. 47 }







*Doni (?)*  
of the garden

*Liludix* <sup>(G&R)</sup> *jasminearum* (G&R)  
Sphinx — " — 13ds. Clem. 173. Mor 19. Mor Sep 199.

Lar. "Mr Newman of Philadelphia found a pupa  
of this insect beneath an isolated Ash tree  
It is probable that the Ash is one of the food  
plants of this larva" Clem 173.  
pupa formed under-ground

Ins pt 41  
fig 2 Md.

Food plants Ash?

Hab. Long Island, N.Y. Pa. (Clem) Md (G)

*brontes a cyclops*

\* *Liludix brontes* G&R. G&R 5.  
Sphinx brontes Hairy  
Macrosia collaris Wacht. G&R Tr A & S. 2. 76

Hab Cuba (G)

Note. "not yet taken in the U.S. This species is figured by Mr Grote in his  
notes on the Sphingidae of Cuba P&S R. 5 pt 1 fig 5. refer vol 5 P&S R p 54.  
for description &c

*Liludix leucophaea* Clem. G&R 5.  
Sphinx " " Clem Syn Tour Acad Sc 1857. 4. 168. Mor. 18 Mor Sep 1858.

Hab Texas. (Mor Syn)

hairs long  
1st seg band or crowd.  
rusticus rustic.

*Macrosia* (Walk. imena) *rustica* (Walk.) G&R 5. Clem. 113. Mor Sep. 187.

Sphinx rustica. Fab.

Sphinx chionanthi S&A. pt 18. Mor. R. 18.

Lar pt C  
fig 9 Am S&A

Tringie tree hawk moth. S&A.

Lar pt 4  
fig 10 Md. I pt 41 Ins 42  
fig 6 Ma fig 8 Md sp. rustica.

Larva feeds on foliage of the Tringie tree Found in Sep (Ma)

Pupa formed underground. in June Geo.

Ins July. Geo.

Food plants Tringie tree & privet

Hab S Am, Mex. West Ind Texas Geo. Va (Clem) Ma (G.)

Lilao?

caterpillar very long green with silver stripes of yellow & black.  
Moth very large. Curiously marked & somewhat with black brown  
white.

*Macrosila carolina* with fig. Ag. Monthly 1879. 165  
primary blossoms of *Datura*, &c.

2 Parasite on *Macrosila carolina* are an undescribed  
Sp. of *Oncophanes*. *Oncophanes polymorpha*, the larva of which  
spins a smooth cocoon of white silk which it fastens by one end to  
the skin of the worm. It

Another species which forms an immense mass of loose webby cocoons  
produces an apparently undescribed species of *Microgaster* (Pitt, 1<sup>st</sup> Rep. 1869. 96  
when describing the worm by hand picking care should be taken not to touch the caterpillars around  
with small oval white cocoons like eggs as these produce parasites which destroy the worms.

*Sphinx carolina* & *S. maculata*  
canned off when young by hornets &c. in  
July & Aug.

Tobacco worm fly frequents potato blossoms wild evening primrose  
poisoning. Jamestown weds.  
cobalt of the druggist. I really black arsenic,  
2 or in a half pint phial filled up with equal  
parts of honey & water —  
boil the worms, or a flock of young turkeys  
Am. Ag. 1862. 2.

carolina

*Macrosila carolina* (Clem) G.P.S. Clem 165. Mor Syn. 189.*Sphinx carolina* Mor. 18. P.A. pl 33. Har. 320. [F.O. Ag. Exp. 1855, 66 poisoning meat?]Ins. Tobacco hawk moth (P.A.) *Carolina sphinx* (Har) Hornblower (and Md.)

Lar commonly known in Md as the Tobacco worm appears of all sizes &amp; ages during the late summer &amp; autumn in the tobacco fields

It does great injury to the foliage

Pupa formed in a subterranean cell from July to Oct (Md) Lar pl 3 fig 6 Md

the late broods remaining under ground all winter

Ins appears in July &amp; hovers in the twilight like a humming bird over flowers, especially honeysuckle &amp; jacobine

mead (*Platanus stramonium*) sucking the honey or nectar

by means of their long flexible tongue which when the insect is at rest is coiled up like a watch spring under the head. tongue when unrolled measures 5 to 6 inches in length

Food plants. Potato. red Pepper Tobacco  
Tomato

Hab. Mex West Ind. S. Am. U.S. (Clem) Md very common. (F.G.) principally mid &amp; South St.

Note as the Caterpillars of the *M. Carolina* & *M. celus*. (*quinquemaculata*) resemble each other very much the differences between the two are given below*M. Carolina* Lar The anal horn is reddish It has no longitudinal white stripe the pectoral legs are ringed with black. the body is more hirsute. Ins. is more indistinctly marked especially on the underwings. It always has a white mark at the base of the wings & partly on the thorax.*M. celus* Lar The horn at the extremity of the body is of a blue or bluish green color, the 6 fore legs have one black ring there is also a whitish longitudinal line on each side of the body & it is also not so hirsute or hairy & the first three segments of the body are much more negate the Ins. is also much more distinctly marked especially on the under wings. & it has no white spot on the base of the wings or on the thorax.*Macrosila carolina* & Am Ent 2. 175Remedy *Stramonium* flowers poisoned with molasses & arsenic will kill moths.

Remedy found long before in Florida by J.G. &amp; recommended in a paper read before the Entomological society in the Smithsonian Inst. 1855. vol.

{ caterpillars of

molasses &amp; blue stone.

{ This much is also said to be destroyed by skunk in Mich Am Ent 2/53

*Macrosila 5 maculata*. Pr Ent 2, 3

Lar commonly known as the potato worm but would be more correctly called the tomato worm as for our fauna on potatoes. 1891 as found on tomato & also occasionally found on tobacco, the worm is not in the least poisonous. Walsh

*Microgaster congregata*.  
Congregates *Microgaster* or tobacco worm parasite. Fitch.

Eggs to the number of 100 or more deposited on the back under of the worm in small punctures made by the ovipositor of the fly. Larvae when hatched they feed upon the fatty substance when they have attained their full growth they gnaw out through the skin instead of dropping to the ground they cling to the still living worm & each maggot spins for itself a small oval white cocoon one end of which it fastens to the skin of the worm & the cocoon where it has issued from it, thus the worm comes to present the remarkable spectacle of being clothed as it were with a hundred or more of these cocoons each containing little white eggs like kernels of rice adhering to & in places wholly covering its back. Fitch. N. Y. Sil. Soc. 1848, vol 23 p. 788.  
34 flies obtained from the larva of one tobacco in June by day & 124 cocoons counted upon a single worm by Fitch.

This parasite is in its turn destroyed by *Pteromalus tabacum* which deposits its eggs in the cocoons of *Microgaster*. Fitch. p. 792.  
→ parasite. Hornet & Orange colored wasps. thought by Walsh to be *Potato*, (deceives when small).

*Macrosila quinque maculata*. Smith in Rep Conn Coll 1871. 219.

The potato worm has the oblique stripes on the sides of the body greenish yellow. The feet and the horn on the end of body black. *Macrosila* or the tobacco worm the oblique stripes are white and edges above with bluish and show transverse black lines. The feet are white and longer. It is possible that both feed upon tobacco or upon the potato or both do upon the tomato but this is not certain.

Potato worm not poisonous & with no power of stinging in the fall in the northern states feeds on both potato & tobacco. *Pteromalus* which in the south the tobacco worm feeds on tomato & tobacco the one being the northern species whilst the true tobacco worm is a southern species whilst in Maryland both are found.

*Macrosila quinque maculata*. Hawthorn.  
Potato or tomato worm. Rees. Repts. fruit graver  
Ann. Entom. 1871. 79  
color very variable

*Macrosila quinque maculata*, with fly 1873  
165.



celus py name

*Macrosida celus* G&R. G&R. 5.*Phlegothentis celus* of Hübner*Sphinx quinque maculata* Steph Mor (Haw) 18. Har 382 } Am. Ent. 1p 33 fig. 92 n 90*Macrosida* - do. Clem 165. Mor Syn. 190. } *quinque maculata* } July 1<sup>st</sup> Rep Mo. p 45. }  
n 773 } } Fitch & NY Ag Soc. 1863 vol 23*Potato worm*. (N.Y.) *Tomato worm* (Md) *Five spotted Sphinx* (Hawes)

Lar. Pupa. Insect of the same habits Northern Tobacco worm. Fitch

as *M. carolina* p. 49. I said by plants in Md

also to injure tobacco in Md. Vin Compt. (see Amu Ent 2 p 28., July 1 Aug 174

Fitch states that the half torn like tail of this caterpillar if I chance to penetrate the skin which a painful wound. This however has never happened to myself altho hundreds have been handled every season. }  
fig 2.5 } *Tomato* } Md SepFood plants *Potato*. *Tomato* } Sometimes *Tobacco*. }  
found upon tobacco but far more usually it feeds on *Tomato* sometimes on *potato* vines. }  
fig 2.5 } *Tomato* } Md Sep

Hab U.S. Calif (Clem), Mass. (Har) Can. (Saunders) N.Y. Md. (Fitch) Can Can Ent 1/77

for differences between *M. celus* & *M. carolina* see *M. carolina* p. 49.  
" *quinque maculata* "

\* There are frequently varieties of larvae found of a dark or almost black color in Md. &amp; Mr Saunders of London Canada also states that he has taken both varieties in his neighborhood. The dark varieties generally in Md appear at the end of the season.

Parasite see Hymenopt. Pl 5 fig 22. } *Microgaster* near *Microgaster* }  
I most probably also infests *M. carolina* } destroys numbers of the caterpillars (Spruce Ent. 1. 46)\* (*Microgaster congregatus* Say Boston Jour Nat History vol 1. p 262. 1835. Fitch & NY Ag Soc. 1863 vol 23 p 769*Macrosida cingulata* (Clem) G&R 5. Clem. 165. Mor Syn 188. Pack Guide 272.*Sphinx convoluta* L. - Drury. S&A pl 32. Mor Cor. 252*Sphinx drucei* Donovan. Lar Pupa. pl 13*Sphinx cingulata* Mor (ab) 18. fig 26 fm S&A.(Swed) *Potato hawk moth*. S&A. Lar pl 14fig 14. S&A. } Lar pl 22 }  
fig 3 Md Sep.

Lar. Descriptions &amp; see Lintner 1858 p. 365 } taken feeding on morning glory Md Sep 28.

Pupa formed under ground.

Dad Aug Sep. (Geo)

Food plant Sweet Potato. S&amp;A.

Hab Mex. West Ind. Texas Geo. Va. Pa (Clem) Md Fitch.

Lar. black - with red longitudinal stripes &amp; when old. S&amp;A fig.

Sphinx. from the  
spins resemble of the  
caterpillar (when at rest -)  
the frames of that fabulous  
and hawk moth.*Sphinx* (Linn) *chensis* (G&R) G&R 5. Pack Guide 272. pupa pl 95*Lithia chensis* Hüb*Sphinx cinerea* Har. 388. Clem 169 Mor 18. Mor Syn. 194 } Dad pl 41 }  
Har. Cor. 252 } fig 7. MdLarva described by Lintner P&S P 3. p 655. I said  
to be rather common on Privet in London Can. (Saunders notes.)Food plant *Lilac* (last mott 8/1) (Am Lintner 1858.)" *White ash*. Privet & *Yew* tree *Lonicera*

Hab Mass. Wisconsin (Clem) Md (Fitch) Can. (Saunders) &amp; Can Ent 1. 77.

Sphinx (*Acherontia*) *atropos* is the largest European Lepidopterous insect I know, its common name  
of Death head from the singular skull like mark on the back of the thorax this mark together with the small  
round which the insect emits when alarmed has rendered it an object of alarm to the ignorant  
in many where it has abounded. in 1826 45. (Mist 2. p. 367) it also frequently hovers for the purpose  
of robbing bees of their honey. (Mist 2. 368)





2. Subventral apple green, horn covered blue. Subventral white stripes (mostly with black), white stripe each side of upper side of head (white in many of 5th).  
 2-3rd. 1 half surface orange with broad brown band, anal 5 slender oblique coal black streaks (abdomen gray black, tips middle ribs black with 2 rows white spots, lower nearly gone).

Red Sep. Fruit green. As. Ontario

Pack guide 272

*Sphinx onupiferarum* G & H 5. Clem 172. Mor S. Ill. 18. Mor Syn 197. Har 328

Plum tree or Hackberry Hawk moth S. Ill.

L.P. pl 3

S. Ill. pl 36.

Plum Sphinx Fitch N.Y.S. 1856 vol 16, p 362.

19 T Ma

Ins pl 46

Lar for description see Lintner P. S. P. 3. 657.

♀ found on apple Md. Sep.

June 7

Pupa formed in a subterranean cell (Lintner) remain in pupa state all winter (last inst Aug. 1899)  
 Ins. from hibernation capsullar appears the following April (Geo.)

Food plants Apple Sugar or Hackberry, Plum, Har

Hab. Mass. Pa. (Clem) mid South St. (Mor) Md. (T.G.) Canada (Saunders)

*Sphinx cremata* (Halk.) <sup>657</sup> Clem 170.

*Agrotis* "Häl

*Sphinx foveolata* Har 7. Mor (T.G.) 18. Mor Syn. 194.

Lar pl 56

\* ? " *lugens* Walk. Mor Syn (err. see below)

19 T Ma Mr. Wollie

Soiled  
mean dirty.

Larva. Described by Lintner P. S. P. 3. p. 655. ♀ found by

Ins pl 42

19 T Ma.

Mr. Lintner 4th Aug. (W.) feeding on (*mentha viridis*)

Spearmint I also taken on Wild Bergamot (*Monarda fistulosa*) (T.G. in Sep.)  
 of Washington took the specimen figures in Md. feeding on Mountain mint (*Pycnanthemum incarnum*) in autumn which was destroyed by small parasitic hymenopterous (more before changing into the pupa state)

Pupa with a short detached tongue case. Formed in a cell underground at an ordinary depth 10<sup>th</sup> to 25<sup>th</sup> Aug. (Lintner N.Y.)

Ins appears the following Apr.

Food plant Apple ??

Food plants { *mentha viridis*, *monarda fistulosa* }  
 { Spearmint Wild Bergamot (Lintner)  
 " " { Mountain mint (T.G.)  
 { *Pycnanthemum*.

Hab. U.S. Mass. Mex. Texas (Clem) N.Y. (Lintner) near Tulare river (Mor Syn) Md (T.G.) Can (Law Ent. 1.17)  
 \* *lugens* of Walker "as yet has been received from Mexico near the Texas border" (G. & H. note)

*Sphinx kalmiae* G & H 5. Clem 171. Mor (S. Ill.) 18. Mor Syn 196. S. Ill. pl 37. Har 328

Bethune. In Nov Scot Inst 2/78

Mountain Ivy hawk moth S. Ill.

Lar pl 6  
 19 T Ma S. Ill.

(Pack guide 272)

Ins pl 46

19 T Ma.

Lar described Lintner P. S. P. 3. 657. "common in Canada (Saunders)

Pupa formed underground. Aug. Sep. (Geo)

Ins appears the following June or July (Geo)

Food plants. Mountain Laurel (X Dry S. Ill.) "Lilac" (T.G.) Ash (Can. Nov 260)

Hab. Can. N.Y. Pa. Geo. "Can" (Saunders) Md (T.G.) Nova Scotia (Bethune)

\* by Ivy do not S. Ill. mean *Kalmia latifolia* mountain laurel. ? often also called Mountain Ivy.

L. green. with 7. yellow oblique stripes bordered on upper edge with black.

In upper inst. dirty yellowish brown. streaked long thin wavy with black under inst. all (brown with 2 broad black bands)

3. 10.



gordius

Bethune to New Scot Inst 2/78

*Sphinx gordius* (Cramer) GHR. 5. Clem 173. Mor 18. Mor Syn 198. Hor 328.  
 Apple Sphinx. Fitch to N.Y. Soc. 1856. vol 16 p 341. Pack Guide 272.  
 Lar found by Mr Edwards on Bayberry  
 (*Myrica cerifera*) July 20th. Lar pl 45  
 pupa formed under ground. pg 25. for original drawing by Mr Edwards

Good plant Apple Mor Syn. Bayberry (leaf) Ins pl 40  
 1/9 5. Northern Sp.

Hab north Sta. Ma. (L.S.) Maine Mass Count. Mor Syn, Nova Scotia Bethune

luscitiosus  
pubescens

*Sphinx luscitiosa* (Clem) GHR 5. Mor 19. Mor Syn 197. Clem 172.

Ins pl 75  
 pg 3. Coll of Ent Soc Phil

Hab Wisconsin N.Y. (Mor Syn)

*E. var. pumila* *Trilina* 23 Ann. Rep. N.Y.S. Cob. Nat. Hist.  
37. pt. 8. / 12. 18.

only distinguished from *E. haerissii* by the darker  
grains of the wings, absence of gray shades etc.  
much less distinct markings.

*Lophura bombycoides* (Walk) Can Ent 1 p 18.

descr. by Mr. Walker, C13 M. VII. 232. *Trilina* as  
mentioned by John Clemens or Grote

provide collection it will be difficult to determine it. or to ascertain its species.

see also. *Hyloicus bombycoides* P. 52.  
very

as the typical specimen is in a  
to determine it. or to ascertain its species.



larger to be in  
immature

*Sphinx lugens* Walker GFR 5

male "as yet received only from Mexico near the Texan border" (GFR male)

*Sphinx*

♂ *Hylocius* (Hüb.) *plebeia* (Fab) GFR 5. Clem 171. Mor 18. Mor Syn 195.

"very  
common  
above."  
plebeia  
common

Ins pt 42  
fig 11 mid

Hab Pa Mass. Comt. (Mor Syn.)

Harris

♂ *Hylocius* *harrisii* (Grote) GFR 5.

or. *Sphinx coniferarum* J. Harris 328

*Ellema harrisii*, Clem, 181. Mor 20. Mor Syn 216.

*Harrisii* *Hylocius*. Sphinx or Hawk moth

Lar Described by Lintner PESP 3.669. ♀ taken about the middle of Sept. under or on the trunks of white pine from which tree it appeared to have been shaken. Taken also in Md. Oct. 9 fed on Pine leaves it matures about Sept. (W.D) "rare Canada" (Saunders) Pupae formed late in Sep or the beginning of Oct. underground Ins. appears the following Spring "frequent flowers at bark in June." Pack guide 272

Lar. pt 97. for colored drawing by  
fig 75. Mr. dentres Albany

Lar pt 4. fig 6. Md. taken on pine 94.

Ins pt 66  
fig 28 mid

Food plants Pine? White pine.

Hab. Maine N.J. N.H. N.H. Car. (Clem) Pa. Md (S.G.) Can (Saunders) (Benthams Can Ent. 1 p. 18.)

*Ellema*

♂ *Hylocius* *coniferarum*

*Sphinx coniferarum* S.G. Clem 174. Mor (Sm) 18. Mor Syn. 196 S.G. pt 42, Har. 328

Pine or Cypress hawk moth S.G.

Larfed on long leaved pine

Pupa formed underground 27 Aug (Goo)

Ins appears the spring following

Lar pt 6. fig 7 for S.G. Ins pt 45  
fig 12 for S.G.

Food Plant Long leaved Pine S.G.

Hab Can to Geo. (Mor Syn) N.Y. Rare (Fab)

Notes "The specimen Dr Harris described under this name as I have ascertained from a photograph was *Ellema* (*Hylocius*) *harrisii* this is probably identical with *coniferarum*". Clem. Mor Syn 196  
"Syn of *E. harrisii* (Grote) PESP 2 p. 115 & probably *Sphinx* (*Lapara*) *Bombycoides* of Walk (Goo)  
as there appears to be so much confusion about this species. S.G. figures have been copied (Goo)  
& the figures are so different of both S.G.

♂ *Hylocius* *bombycoides* Gr. GFR 5  
*Lapara* " Walker.

This species although mentioned above as a type of *H. coniferarum* is <sup>not</sup> GFR's list.  
See also *Lapara* *Bombycoides* p 52



(Doris?)

*Nolba (Walk) hylaeus (Walk.)* G.H. 5. Mor Syn 203. Clem 175 (prini)

*Sphinx hylaeus* Drury Harris 328. Mor 18

*Sphinx prini* S.A. pl 35

Lar pl 2  
pg 18 Ma

Gall berry Hawk moth S.A. Alder Sphinx, Har. Ins pg 42  
pg 12 Ma

Lar. found feeding on the foliage of Papaw (*Asimina triloba*)  
in Md. Sept.

Pupa. formed underground end of Sept.

var. Ins pl 102  
pg 17 for Dr. Schott  
Lab.

Ins. appeared the following spring & is in the habit of hovering  
over flowers & sucking the nectar from them, this insect is  
rare in Canada near London." (Saunders)

Good plants Black alder or winter berry Inkberry  
Papaw "Whortleberry" Har

Eal green with 6. bluish white lines border on up side with red.  
Moth smaller than above (Alder) checkers - dk brown & dirty  
longish white. (Alder) (Alder)



his twice as long as  
width back.

*Strophometa* (Burm) *ello.* (Burm) <sup>57</sup> GFR. 5. Burm aphid Brazil p. 13. 1856  
*Sphinx* *ello.* *linn* Mor 18.  
*Anceryx* (Grote list 1865) Walker. CBW 1858 Mor Syn 200. Clem. 175.  
*Lapara* " *G.* list 1865. PESP 5 p. 167.  
*Cynnis* *G.* notes Cuban shk. PESP 5-73.

In pl 76

Food plant *Psidium* or Guava. (Mor Syn) <sup>1/2</sup> 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

Hab. S. Am West Ind. Mex. Texas. South \* St. Caly. (Clem) Cuba. (G)

obscura

*Strophometa obscura* GFR. GFR 5.  
*Sphinx obscura.* *lac* Mor. 19.  
*Anceryx* " Clem 176. Mor Syn. 201.  
*Lapara* " *G.* list 1865. PESP 5-168.

In pl 75

1/2 5. coll of Ent Soc Phil.

Hab. West Ind. (G) Mex (Walker) Texas (Clem) of Grote list 1865. PESP 5-168.

Larva G. of *Sphingini* G. figured but not identified or determined

{ Mr. Chas. Darnall in his work on the variations of Animals and plants 2. p. 157. 8. 7  
 footnote states that "a number of moths, especially *Sphinx* moths when hatched out in the  
 autumn out of their proper season, are completely barren though the fact of their barrenness  
 is still involved in some obscurity." Am Ent 2. 55

*Sphinx*?

Larva found on Grape (S.C.) S.G.

Lar pl 4  
 1/2 2 S.C.

*Sphinx*?

Larva found on Oak (Ma) S.G.

Lar pl 19  
 1/2 13 Ma

*Sphinx*?

Larva found on wild Cherry (Ma) July 18

Lar pl 21  
 1/2 6 Ma.

*Sphinx*?

Pupa found underground by Mr. Weller S.G.

Pupa pl 86  
 1/2 12 S.G.

*Sphinx*

Larva found by Mr. Weller on Ash (D.C.) Sep 14. Lar pl 86  
 1/2 10





*Sphinx*?

Larva found on Grape (D.C.) by Mr. Walter Sep. Lar. pl. 91  
fig. 24 D.C.

*Sphinx*?

Larva found on Laurestinus (D.C.) Aug 22  
by Mr. Walter

Lar. pl. 92  
fig. 21. D.C.

*Sphinx*

Larva found on Lilac by Mr. Walter (D.C.) Oct.

Lar. pl. 92  
fig. 23 D.C.

*Sphinx*?

Larva found by Mr. Walter (D.C.) food unknown

Lar. pl. 92  
fig. 24 D.C.

S

*Sphinx*?

No 553. of Harris's cabinet in Coll. of  
Boston Socy of Nat Hist.

Lar. pl. 105  
fig. 12.

*Sphinx*

Larva found on Poplar by Mr. Lintner Albany N.Y.  
never grows much larger.

"color bluish gray a dull yellow substigmal line  
caudal horn black caudal plate ferruginous red  
maturity it measures red 1.3. inch

Lar. pl. 99  
fig. 16. from sketch  
by Mr. Lintner

Note " no published description of the following Sphingidae have been published.

Nessus

inscripta

versicolor

Sordida }  
since fig. 18.

phoebea

luscitiosa

repentinus

modesta

gemmatas

astylus }  
is a myops

brontes

Linnaeus P&S.P. 3. 671.



Aegeridae resemble bees swarms. fly very swiftly in the hottest sunshine. Larvae are brownish white mostly in the hollows of stems of plants. Larvae generally whitish or light greyish, powdery with 16 feet but no thorns or prominent spines on end of body, pupae formed in cocoons.

Aegeridae G&R. lat 1862 { Sometimes termed Hornet hawk moths

note "No revision of the North American species has lately been published most of our species belong to Aegeria (Stab), G&R note. P. 5"

Melittia  
cucurbitae  
of the gourd.

Melittia (Hüb.) cucurbitae (Har), G&R 5. Pack Guide 279. Lar. pl. 181  
Aegeria cucurbitae Har 330. Riley 2<sup>d</sup> Rep. p. 69. Har Com 234. fig. 9. Mid Aug  
Trochilium " Mor 17. Mor Syn. 139. In. pl. 42. To Ent 1. 111  
Var. P Melittia ceto Walker fig 10. Mid.

Squash vine Aegeria Har

Lar. lives in the pith in the stem near the root & by devouring the interior causes the plant to perish suddenly very destructive in Mid. Aug & Sep.  
Pupa formed under ground in a cocoon composed of grains of earth cemented together by a gummy substance "within the stem" (Pack Guide 279)  
In. the late broods of Lar appear as insects the following spring  
Egg deposited near the root on the stem July.

Food pith in stem & root of Pumpkin Squash

100  
150. Body orange colored spotted with black, hind legs  
femur each orange & black hairs. hind wings only transparent.

The North. Am. (Mor Syn) & Mid. (G&R) Mass. (Har)

Melittia satyriiformis Hüb. G&R 5, Mor C

Melittia ceto Walker G&R 5 Mor C.

yellow shades

P Melittia flavitarsis Walker. G&R 5 Mor C.  
Trochilium laticolle II Har name previously employed. Silliman's Jour. 36. p. 309. Mor 16.  
Mor Syn 133

Head blackish S. (Har.) N Hamp. Mor Syn. on Populus canadensis Mor Syn.  
Balm of Gilead. Gray.

sp. 1865 a small bird  
or humming bird  
becomes or shaped

Trochilium (Scopoli) apiforme (Linn) G&R 5. Mor C

note "an European species introduced & acclimated in the vicinity of N. Y." G&R.

naked

Trochilium denudatum Har. 36. Mor 16. Mor Syn 133 Har 330  
Aegeria " Har.

Ask new Trochilium Har  
Larvae perforate the bark & sap wood of the trunk from the root upwards - also injure the branches  
pupae formed June in a cocoon. but of low ants & ants it was not of the cocoon finally through the hole in the stem or root the larva Food plant Ask.  
had previously made & cocoons as a moth leaving the chrysalis & then sticking in the hole in the bark

margined

Trochilium marginatum Har G&R 5. Harris Silliman's Jour. vol 36. p. 309. Mor 16.  
Aegeria "

Head N Hamp. (Mor Syn)

*Pygma caudata* Har. Aug 3.  
reuter 22 mm 14p 14y Col. not this 22



*Algeria* maxillae very short abdomen robust  
antennae abbreviated.

*Egeria*  
myth name  
maple

*Algeria* (Fab) *acerni* (Walk) GPK 5. Mor O. Clem for a NS.  
*Trochilium* *acerni*. Clem for a NS 1864p 40 Mor Syn. 331.

Ina pl 23  
fig 5 coll of Mr Newman

Larva bores into the trunk of the Maple. (Mor Syn)  
Sas found also on Maple by Mr Newman Phil.

Hab north St (Mor Syn) Pa (Newman) Food plant maple.

*Algeria* diurnal in habits flight swift but not pronounced & generally slight when feeding.  
In form & color they resemble *hirsuta* Har

ring horned

*Algeria* *annulicornis* WSp Malth. GPK 5. Mor O.  
*Trochilium* "

Ina pl 68  
fig 2.3. coll of Mr Malth  
Ellen

Hab Illin Malth

*Algeria* *bassiformis* Walk. GPK 5. Mor O.

tailed or furnished  
with a tail

*Algeria* *caudata* Har GPK 5. Silvanus Journal Vol 36. p 311  
*Trochilium* *caudatus*. Mor. 16. Mor Syn 134. Fitch Tr NY S Ag Soc. 1856. vol 16 p. 424. Can Ent 1. 79.  
Wild. Cynant borer (Fitch)

The larva is distinguished by a very long  
abdominal tip at end of abdomen  
color brownish with antennae  
each feet. Hair lustrous yellow

Larva inhabits the stems of our indigenous (or wild) Currant "

Food plant Rubus floridum Mor Syn 134.

Hab. Mass. With St.

Can. (Can Ent 1/18.)

*Algeria* *emphyliiformis* Walk. GPK 5.

Waut

*Algeria* (Probably.) Tr Ent 2. 10p

Lar. opaque, white with red head & blackish mouth 16 days I abt 1 inch long  
- found boring in stem of Blackberry near the surface of the ground  
by M A Fuller. NY. -

Aegeria  
exilis

Mice, - an instance in my own observation where <sup>the earth around</sup> peach trees in fruit was observed to be bored up by mice. You <sup>have</sup> examined proved that every tree thus disturbed had been infested by the peach tree borer - that the grub had been eaten -

*Aegeria excrucians*

a private remedy sold in Michigan

Bank up earth around collar of tree ten or twelve inches high in June (after cutting out all worms &c). Leave it there until freezing weather in the fall.

Am Ent 2. 112.

*Aegeria excrucians*

Remedy "soft soap applied for canker (beetle) apple borers" is effective. yet it is no protection to the *Aegeria excrucians* or peach borer. Soft soap is recommended to be applied to trunks of Lilacs for the *Aegeria pyraeae* about end of May. (Am Ent 2. 67) with but faint hopes of any good result.

*Aegeria excrucians* Say. Prae Ent 1. 28.

Remedy. Larvae may be destroyed at any time of the year by pouring boiling water on the part attacked by them. This kills the larva but does not in any wise injure the trees.

Bank up trees a foot high or so in June. Then in Autumn level down the bank thus exposing the young larvae to the frost of winter, or bury the earth on its natural level through the summer & in Autumn uncover the collar of the tree & the large roots, springing therefrom. (note, this last plan would not kill the larvae deep amongst the roots & might also perhaps injure the tree.) If surrounded the base of the tree with a strip of coarse paper about a foot wide having first removed the earth from the collar secure the paper above with string. Below by returning the earth upon it taking care that at least 2 inches of the paper is ~~under~~ under ground. (note this paper is sometimes covered on the outside with coal tar & other substances offensive to the insects &c.)

\* Prae Ent 1. 20

Soap said to be of no avail against these borers altho effective when applied to Coleopterous insects.

*Aegeria excrucians*. Am Ent 1. 181. & 222, 201.

moving up earth about the trunk <sup>in spring</sup> about 2 or more feet high recommended for low growing trees, where they <sup>are</sup> much and near the ground.

*Aegeria excrucians*. Prae Ent 1. 20

Remedy pour boiling water over roots. This can be done without injury to the tree.

Riley Rep. New ins. Minn. 47.  
 Fish Tr. N.Y.S. Agr. Soc. Vol. 14, 1854 p. 812.

*Algeria extensa* (Say) GOR S. Harris 321. Say PL 19. Pack guide 277.  
*Salix na usceiformis* Thall. GOR in AES 2. 75

2. *Paranthrene pepsioides* Hub

LPR. pl. 43

*Prochilus extensa* Mor. 17. Mor Syn. 140 Fish Tr. N.Y.S. Agr. Soc. 1854. vol 16. p. 356

### Trach tree borer

like a wasp (male)  
 1/2 inch long & 1/4 inch  
 1/2 inch wide extending nearly  
 from the (row of 4 joints) (3rd)

Larva bores in the bark of solid wood generally near the root at or under  
 the surface. It causes the gum to exude, & greatly injures the tree  
 wood like cocoon under the bark or in the earth

re. 1  
 out 1

1) June to Sep. (Mid.) remaining in the larva state all winter  
 near the ground or in the crotches of the branches  
 on in Canada wherever Peach trees are grown Saunders  
 Insurance Co. 1854.

Larva Peach Cherry Plum Apricot Nectarine

Can (Saunders)

Nov 16 Nov Sep 140

GOR 5.

Ins pl 68  
 fig 1/2 coll of Mr Walsh.

all on the black oak by Mr Walsh Illi  
 found in Black oak gall

GOR 5.

GOR 5.

L. 2 p 182. pl 2. fig 64

Ins pl 47  
 fig 1/2 83. fm GOR.

wl  
 Al  
 strol  
 mencing  
 her thre  
 e part

GOR 5. put here but see p. 55. over 2 pages

GOR 5.



*Aegria exilis*. - an instance in my own observation where peach trees in pot were observed to be rooted up by mice. You examination proved that every tree thus disturbed had been infested by the peach tree borer - that the grub had been eaten -

### *Aegria exilis*.

a private remedy sold in Michigan

Bank up earth around collar of tree ten or twelve inches high in June (after cutting out all worms &c). Leave it there until freezing weather in the fall. Am Ent 2. 187.

### *Aegria exilis*

Remedy "soft soap" applied to the roots of the tree. Examine the roots of the tree. If you find any narrow strips of cotton closely around the borer, a foot above the ground, the cotton may be removed after mid-summer to be again applied the following spring.

### *Aegria exilis*

Remedy. - Lay the gear by my thumb. - If the injury is in Autumn (young larvae) earth on it & in Autumn large roots. - Lay wood roots & might surround the borer paper about a earth from the with honey, it taking care paper is about 1 sometimes common & other substances offensive to the insect. -

Am Ent 1. 20

Soap said altho effect insects.

### *Aegria exilis*.

moving up earth feel high & low. - They are not act.

### *Aegria exilis*

Remedy pour but yellow. This can be done.

Peach borer. In early spring remove the earth soil from about the collar examine from any borer that may be there commencing as low down as the roots will admit, wind narrow strips of cotton closely around the borer a foot above the ground, the cotton may be removed after mid-summer to be again applied the following spring.

Cult. 1862-1872

Peach borer. half a peck of slacked lime or ashes, or even mound of soil raised ~~near~~ about the base of the tree by the first of July. Removed in November, this prevents the moth from laying her eggs near the root. For the tender bark which is at the surface of the ground. Taking away the bark in the fall hardens the bark uncovered bark for the ensuing spring. -

Am Ent. Roberts, Plymouth Mass.

### *Proctosyllium exilis*.

Examine trees every spring & see if any gum exudes between the ground & the root. A bank of ashes or air slacked lime or coal or or mixture of such should be placed around the base of the tree to the height of a few inches - should be taken away in the autumn. -

in Rec. Pa.

Peach borer. remove soil for two inches with a sharp knife cut worm out. Am Ag. 1865. March

Scalding hot water poured over the crotch? of each & a small water hole near the base of each. The third is made to hold the water. you can have the first too hot. - applies in early spring when the first water comes out of the ground. - Am Ag. 1872

My cure for the peach tree is hot coal & ashes. & S. (Baltimore Goodell - Ohio.) have always found it a success. (written after seeing the above) the roots have been covered for more than a foot around the tree & S. S. shows full of hot hickory coal & ashes applied to the trunk covered with fresh dirt. - ed. remarks, a severe remedy. It may be that the killing of the worm is due to the poison contained in the ashes. - Am. Rev. March

Peach borer. Cut out with a knife. Cult. 1862. 11

also. "Scald" a hollow around the tree & give a pile of boiling water. or a quart of wood ashes to a pile of boiling water. spring of fall. water preferable. "five pieces of wire-lashed line placed near the tree about the first of May level with the soil." Cult 18

Relig. Rep. Max. in Minn. 67.  
 Fitch Tr. N.Y.S. Ag. Soc. Dec. 14, 1854 p. 842.

*Algeria eximia* (Say) GFR 5. H. ar. 331. Say Pl. 17. Pack guide 277.  
*Sannina ureocephala* Walk. GFR Tr. A.E.S. 2. 75. G. P.O. Ag. Rep. 1854 p. 83

? *Paranthrene pupiformis* Hub

L.H.S. pl. 43

*Trochilium eritaca* Mor. 17. Mor. Syn. 140 Fitch Tr. N.Y.S. Ag. Soc. 1855, vol. 16, p. 356

Black tree borer

lar. like a worm (maler)  
 integ. clear & shiny  
 1/2 blue (under extending nearly  
 across the front of head) (Fitch)  
 wings transparent but (hardly)  
 stained with streak blue (Hagen)  
 1-00.  
 female fore wings blue & opaque  
 hind wings transparent - besides like  
 those of the male abdomen  
 red blue with a broad orange  
 belt in the middle 1. 50.

Larva bores in the bark of solid wood generally near the root at or under  
 the surface of the ground this causes the gum to exude & greatly injures the tree  
 Pupae formed in a tough pod like cocoon under the bark or in the earth  
 near the tree.  
 Insect appears July Aug (N.Y.) June to Sep. (Md.) remaining in the larva state all winter.  
 Egg deposited on the trunk near the ground or in the crotches of the branches  
 This insect is also "common in Canada wherever Peach trees are grown" Saunders  
 ♂ & ♀ entirely dissimilar in appearance see fig.

Food plants Peach Cherry Plum Apricot Nectarine

Hab Mass N.Y. Pa. " Md (F.G.) Can (Saunders)

fulvous - red skin  
 yellow foot.

*Algeria fulvipes* Har GFR 5. Mor 16 Mor Sep 140.

*Trochilium*

*Algeria geliformis* Walk. GFR 6.

qued.

*Algeria hospes* Walk. N.Y. GFR 5.

*Trochilium*

Ins fig 68  
 fig 49 call of Mr. Walk.

Ins. raised from a gall on the black oak by Mr. Walk. Ill.

Hub Ill (Walk)

found in black oak gall

*Algeria hylotomiformis* Walk. GFR 5.

*Algeria asynepipennis* Walk. GFR 5.

painted foot

*Algeria pictipes* GFR Tr. A.E.S. 2 p. 182. fig 2. fig 64

Ins fig 47  
 fig 83. fm GFR.

Hab Pa. (GFR)

*Algeria pleciaformis* (Walk) GFR 5.

*Algeria polistiformis* not in GFR list put here but see p. 55. over 2 pages

resembled like Pyralis

*Algeria pyralisformis* Walk. GFR 5.





*Aegeria pyramidalis* Walk. GHR. 5.

*Aegeria pyri* (Har.) GHR. 5. Har 335. New Eng. Farmer. Volume 9. p. 2. Har 335 pt 5/fig 5  
*Proctium* " Mor 17. Mor Syn 141. Fitch Tr NYS Ag Soc. 1856 vol 16. p 349.

Lar feed mostly upon the inner layers of bark Ins pt 141  
 pupa formed in crevices under bark fig 16 fm Har fig  
 Ins appears in the autumn leaving their cast pupa skins projecting  
 from the hole which the larva has made

" encloses a wash purple mark with a broad yellow  
 band not as down + 2 narrow yellow bands forward of it  
 D. 55. under side golden yellow wings clear & tan like  
 head marbled, very green (purplish black). Tufts of  
 prominent wings blackish C 50

Hab Mass. Food Plant Pear

See also New England Farmer vol 9 P. 2. 1830. (Harris)

*Aegeria quinquicaudata* Hulings GHR. 5. Hulings P&S P. 1. 277. Pack guide 279.  
*Proctium*

Ins captures Middletown Frederick Co. Va.

Ins pt 75  
 fig 2. Hulings in Coll Ent Soc Phil

Hab Va Hulings

*Aegeria saflygaeformis* Walk. GHR. 5.

*Aegeria scitula* Har. GHR. 5.

*Aegeria scitiformis* of Brit Museum. GHR. 5.

Ins pt 56. Fla. 74.  
 5

Hab. Fla. sent also from Texas by Mr Linscum

*Aegeria syringae* Har. GHR. 5. Am Ent 2 p 61 Pack. in Agr of Mass. 1869. 70 p. 250  
*Proctium* " Mor 16. Mor Syn 139. Ins pt 32

Silac. agoria. Sweet taken on the stem of a lilac bush, which was  
 almost killed by the numerous holes made by  
 the larva. (KC) Ins pt 9 96.

Hab. Mass. (Har) DC. 56. NY (Pack) Food plant Lilac

Remedy (perhaps soft soap applied to trunk & limbs about last of May. Am Ent 2. 61.  
 but doubtful)

*Aegeria* ?

Ins sent in a collection from Dr Salvo. 1869.  
 collected from Cal. Arizona & Mex.

Ins pt 103  
 fig 3.

*Aegeria tipuliformis*

Lar. a small whitish worm with a darker line down middle of back. head & legs brown  
 Im. wing like wings clear & glossy, fore pair opaque yellowish at the tip, margins  
 black. & a band near the middle. Abdomen black with 3 yellow bands  
 0.65 to 0.85

*Aegeria tipuliformis* To Ent. 1. 22

Remedy cut off & burn all affected branches  
 in winter. (note this was tried in N.Y.  
 & the next season none could be found to continue  
 the experiment with.) H.

*Aegeria tipuliformis* Walsh To Ent. 1. 29

Cut off barked twigs in May. & earlier  
 note: (the injured) buds can readily be found by bending  
 them down & if perforated they will be very likely  
 to break. or at least to bend very readily when  
 injured - (H.)

*Aegeria tipuliformis* Smith Samuels & H. Frost  
 growers (to N. York. 1871. 61.)

eggs deposited singly near a bud  
 I cut them away into center of stem. Found a  
 burrow several inches in length which so weakens  
 the affected stems that they are nearly broken.  
 If found in burrow, a remedy may be given.  
 made nearly three to the stem & being nearly the last  
 water often remains & which is burnt open by the  
 pupa previous to the moth escaping.

*Aegeria tipuliformis* Walsh & H. Frost  
 23 ann. Sp. N.Y. 1871. 61.

I stranded

*Algebra tricornata* Har. 4485  
*Trochilium* " Mor 16. Mor Syn. 138

Hab Mass (Saulborn)

Ins pl 22  
 fig 18. coll. of Mr Saulborn Mass.

\* *Algebra tipuliformis* (Linn) GFR p 5. Harris 384 Saunders Rept Comm. <sup>June & Aug</sup> <sup>Ontario Co.</sup> <sup>Can. 1868, 1869</sup>  
*Trochilium* " Mor 16. Mor Syn. 141. Fitch 2. N.Y. State 1866 } L.S. pl 43  
*Algebra tipuliformis* Pack. Insects 279. } vol 16. p. 428  
 Egg deposited singly near the buds when in a few days they } can find 1-79 } fig 1. Med.

European Currant } Larvae cut their way to the centre of the stem fixing on  
 borer Fitch } the path which they destroy here they live during the summer  
 Currant hawk moth? } burrowing up & down & enlarging the channel as they grow older until it is  
 " clear wing " } made so hollow as to be readily broken off in the spring.  
 Pupae formed in the hollow stem towards the end of May.

Warts in the *Al. tipuliformis* or } The appears early in June (Can. Saunders) some bred at Fitchville Landing  
*Prococcus pinii* } No. came out very early in spring (May) Drs. may be seen flying in the hottest sunshine  
 with great activity or basking upon the leaves. alarmably expansive & fluttering than 'anaba tails' <sup>243</sup>

Hab. Mass. (Har) Can. (Saunders) N.Y. (Fitch)  
 Inhabits burrows made by currant borer. 1/13.

\* Insect not a native but has been introduced from Europe with the culture of the currant  
 considered by Harris as identical with the European species. GFR.

*Algebra polistiformis* Har Walsh 1<sup>st</sup> rept 1868 Illin p 26, Ag Rept 18. Pack Guide 278.  
*Trochilium* " J.G. P.O. Ag Rep. 1854 p 80. Fitch 2. N.Y. State 1866. vol 16 p 389  
 Grape vine borer. L.P. pl 17  
 fig 5. N. Can. Dr. Krown

Egg deposited June <sup>or July</sup> near the roots on the collar of the vine  
 16 footed larva 1. 233  
 Core into & destroy the roots eating the bark and sap wood  
 they work underground being sheltered by the outer bark.  
 formed in an oval pod like cocoons constructed of bark  
 chips & earth cemented together by a gummy substance  
 these cocoons are made near the roots of the grape.

can easily be distinguished from the Ins. appears the following season, from June to Sept. (Nth Car)  
 The specimens figured were sent to the Dept. of Agriculture  
 by Dr. J. T. Krown of Albemarle North Carolina who states that  
 the larvae do a very great deal of damage to the vines  
 planted in his neighborhood. & that the Scuppernon grape  
 alone is exempt from their attacks  
 Ins when flying make a humming noise (Fitch) Wood plants Grape vine, Dr. Krown  
 Note Mr Newman of Philadelphia states that he has taken this insect just emerged from the pupa state, on an Oak stump, full of holes  
 bored by the larvae whose grape vines in the neighborhood.  
 Hab North Carolina (Dr. Krown) Mich. (Fitch) Ohio (J.G. P.O. Ag Rep.) Pa. (Newman) Phila. (Newman)

L.S.

Insects not yet determined but figured

*Algebra* ?

Inspl 43  
 fig 3. coll. of Mr Saulborn

Hab Mass. Saulborn

Food plant Hawkweed

*Algebra* ?

Hab Md.

Ins pl 43  
 fig 4. Md. 24.

*Algebra* ?

Insects taken "in coctis"

Hab Md.

Ins. pl 43  
 fig 6. 7. 8. 9. Md 24

(56)







spotted foot

*Amecoloxus* G&R *maculipes* G&R. C. G&R Tr Am Ent Soc. 2. 179.  
Texas.

Eupis a small bee  
or wasp

Thyreidae.  
Thyrini

speckled or spotted

*Thyris* (Harris) *maculata* (Har) G&R. C. Har. Silenus Jan 36. Mon 17. Mon Syn. 142.  
*Salagossa* ? *perspicua* Walk (rubbed sp.). G&R Tr AES 2. 69. & 75.  
or *Thyris* *vidua* † Walk. " " p. 69. & 75.

I. June 17 Ny 1869. Linton.

Ins. pl. 51  
fig 27. Md.

Ins. pl. 69. Ill.

fig 37. coll. of Mr. Walth.

Hab. Mex. (Har) Md (L.G.) I. Illi (Walth)

mourning

*Thyris* *ugulensis* Bds. G&R C. Mon 17. Mon Cal. O.

Ins. pl. 51  
fig 28. Md.Ins. pl. 69  
fig 36. Ill. coll. of Mr. Walth.

plates broad Thyris

\* Platythyriini

\* Note "this tribe should probably be moved to the Noctuidae"

bees ?

*Hysoeca* (Clem) *oculabana*. Clem. G&R 6*Platytheris* *fasciata* G&R.*Barmia* *plena* Walk. G&R Tr AES 2. 87.glazy or  
translucent*Hysoeca* *vitulina* Bds. G&R C.*Thyris* *vitulina* Bds.

an rite Amer bor ?

uniform

*Hysoeca* *aequalis* G&R.*Barmia* " Walk.*Farnia* *flagrata* Walk

an rite Am bor ?



Nygmaenidae  
Castniinae  
Alpini

*Luzaria* prop name

Larvae 16 footed short cylindrical, body obtuse at each end. Ins. fly in hot sunbui

Alpini  
 without serrae

*Alpina* Hüb. *Alpina* GFR. GFR 6. GFR Tr. Am Ent Soc. 1 p 326. pl 6. fig 37 ♀  
*Alpina* Alpini.

*Alpina*  
 Castni. p. 12

Hab Calif. (GFR)

Ins pl 90  
 fig 4. fm GFR. fig

no. "readily distinguished from *Alpina octomaculata* by smaller size different color  
 & proportion of spots on the secondaries" GFR.

Langton

or

*Alpina langtoni* Couper GFR 6. GFR Tr. A.E.S. 1 p 326.

*Alpina* *octomaculata* [Walker GFR. Tr. A.E.S. 2. p. 71  
*Langtoni* *Alpina* or *Forster*

Insect specimen figured from Quebec & Caconna river  
 from the collection of Mr Saunders Canada.

Ins pl 89  
 fig 1. Coll. of Mr  
 Saunders.

Hab Can. Saunders & Can Ent 2 p 38. Caconna. (Can Ent 1. p. 12)

(See also *Alpina octomaculata* which is asyn. GFR Tr. A.E.S. 2. p. 71)

Lorquess

*Alpina lorquessii* GFR GFR 6. GFR Tr. A.E.S. 1 p 328 pl 6 fig 39. ♂

*Lorquess* *Alpina* or *Forster*

Ins pl 90  
 fig 6. fm GFR fig.

Hab Calif.

Maccolloch

*Alpina maccollochii*. GFR. GFR 6. Mor 15 Mor Sep 183.

*Maccollochii* *Alpina* or *Forster*

Specimen from Missouri

Ins pl 58  
 fig 7. Mo.

Hab. Can. (GFR Tr. A.E.S. 1. p 328.) Missouri (H.)

Manpasa Spanish  
 butterfly.

*Alpina manpasa* GFR. GFR 6. GFR Tr. A.E.S. 1. p 329. pl 6. fig 40 ♀

GFR Am Ent Soc. no 3 p 7.

Hab Calif. (GFR)

Ins pl 90  
 fig 13. fm GFR fig.

of Ridings

*Alpina ridingsii* Grote. GFR 6. GFR Tr. A.E.S. 3 p 52. pl 5 fig 18 ♀ Tr. A.E.S. 1. p 328

*Ridings* *Alpina* or *Forster*

Hab Color. (GFR)

Ins pl 80  
 fig 8. fm GFR fig

of Sacramento, Calif.

*Alpina sacramento* GFR. GFR 6. GFR Tr. A.E.S. 1. 327. pl 6. fig 38 ♀

*Sacramento* *Alpina* or *Forster*.

Hab Calif.

Ins pl 90.  
 fig 12. fm GFR fig



*Allypina octomaculata* Hal. G. H. C. 6. Mor. Sm. 15. Mor. Syn. 132. Harris Sp. 34

*Leguminosae* " Fab.

*Agrostis* Kirby Mor. 15.

Riley 1<sup>st</sup> Rep. Mo. 136. 2. Har.

*Sphinx octomaculata* S. & A. pl. 44

Lar. pl. C. 100. 1/2. 2. fm S. & A. 1/2. 11. fm Riley

Yellow Spotted Tiger Hawk moth (S. & A.)

Eight Spotted Forester Fish

Ins. pl. 44. 1/2. 2. fm S. & A. 1/2. 11. fm Riley

Lar. when full grown frequently conceals itself within a folded leaf

Larva feeds upon the foliage of the grape May June

Pupa. I saw (100) July (Mass) formed underground in an earthen Cocoon without

Ins. flies very swiftly but does sucking flowers. I taken

in 1<sup>st</sup> June 7<sup>th</sup>. (S. June 10<sup>th</sup> 1869) N. Y. Lincoln 1869

Good plant Grape

See also. *Allypina Langtonii* Couper. which is the proper name. G. H. C. 6. Tr. A. E. S. 2. 71

Hal. G. H. C. 6. Mass. (Har) Can. rare (Saunders) Cocoon (Law Ent. 1. 13.) Mo. Am. Ent.

*Allypina octomaculata*

Remedy for caterpillar a good showering of soft  
fresh water.

for insect a little poisoned molasses  
exposed near the vine. Am. Ent. 2. 152

S. white or light blue transversely banded with narrow  
black lines - a broader orange band spotted with black on  
the middle of each wing - dots on body hairy.  
It forms in loose cocoons on the surface of the earth.  
It hatches with 2 large yellow spots on each fore wing, 2 white  
on hind wings - head brownish red, orange red & hard.

*Allypina octomaculata* Linnaeus Am. Ent. 11 666

quite destructive to grape foliage in western  
part of city of N. Y. 1868

















coracinus of a brown  
or raven. - as is and  
black as a raven.

*Acridium coracina* G. & C.  
*Acridium coracina* Clem.

*Procris* (Fab) ? *Smithsoniana* (Clem) G. & C.  
*Smithsonian procris*.

top fine  
uppy form  
smaller to dark  
the halves from its  
color. & markings

*Pyramorpha* (H. Sch) *dimidiata* (H. S.) G. & C. Pack guide 283.

*Pyramorpha centralis* Walk. Cat. Boiss. mus. G. & C. 2. 71

*Malthaca perucidata* Clem. Mor. Syn. 288.

*Glaucopus dimidiata* Mor. 16, Mor. Syn. 289.

In pl. 56  
fig. 23 Md.

Insect very common in damp woods Ma.

\*not very common at Fort Stanley Can. (Saunders note)

Lab. Hain (Hannicott) Geo (Mor. Syn.) Md (G. & C.)

Man. Saultern.

Larva of *Oenochia* which resembles that of *Arctia* constructs its cocoon out of the hairs of its body without spinning any silk threads so far as we could ascertain by microscopical examination. The hairs of this as of probably most hairy caterpillars but more especially the Bombycid larvae are thickly armed with minute spinules so that by being simply placed next to each other they readily adhere together. The cocoon is finished in about 12 hours.

Pack p. 239.

(Series?)

*Scopsis (Walker) fulvicollis* (Walk.) GPK 6*Glaucopis fulvicollis* Kötner*Glaucopis semidiaphana* Har. J. Phil. 318. Mar 16. Mar 1891*Glaucopis* (Lentini) 1867 N.Y. 332. juv. fulvicollis

Hab. South Virg. St. (Mar.) Tex. Fla. Geo. Pa. &amp; N.Y. Gr. to E.S. 2. 116

Jus pl. 56

fig 24 Md.

Port Stanley Can. not very com. (Saunders) Mex. (23) Mass (Har.) &amp; almost to take their food. Har

*Scopsis packardii* Goto GPK 6.*Packard's Scopsis*

Packard

series a comb  
two to three  
virgin?*Clenucha (Kirby) virginica* Goto GPK 6.

Mar C.

Pack guide 288.

*Scirpus virginica* Chapuis

GPK Tr. A.E.S. 2. 71

In pl. 56

*Clenucha Lotteillana* Kirby. Clem. Walk. Mar. Apr. 285.

In pl. 56

virgin? *Clenucha*

Female lays her smooth green spherical eggs in a broad mass. In May found under a log of June &amp; is covered with short regular tufts of bristle like hairs of a yellow color (Saunders notes)

Ind. taken frequently in Canada in damp woods near Buffalo

&amp; is rather common in the spring. (Saunders)

Ind. flies in the hottest sunshine. (Pack) (J. Phil. 22. Lentini. Mar. 1891)

Hab. North &amp; S. Can. (Saunders)

Fla? (C.G.)

Conn. (Prof. Verrill) Ha Ha bay (Law Ent 1. 12)

{Malabar N.S. Billings  
Trunk. Nova Scotia. Feb. 1. 80

Cresson

*Clenucha cressonana* Goto GPK 6.

GPK 6.

P.E.G.P. 2 p. 64

&amp; 334 pl. 8 fig 5

&amp; 2 " 3 p. 42.

Hill Pikes Peak, Goto,

Jus pl. 79

fig 14 fm GPK fig

expos. pale

*Clenucha ochroscapeus* GPK 6.

GPK 6.

GPK Tr. Am. Ent. Soc. 1. 320

*C. ochroscapeus* with following sp. differs from *C. virginica* & *C. cressonana* in that the head is slightly narrower behind while the labial palpi are somewhat shorter & spiculated (Gn.)

Hill Calif. (Gn.)

multiparous  
in many places.*Clenucha multifaria* GPK 6.

GPK 6.

GPK Tr. Am. Ent. Soc. 1. 331. &amp; Am. Ent. Soc. 1. 338.

*Apostonia? multifaria* Walk.*Glaucopis rubroscapeus* Hentz*Clenucha rubra* GPK.*Choridea? rubroscapeus* Walk. GPK 6. A.E.S. 2. 84" differs from *C. ochroscapeus* - mostly in coloration & is readily distinguished by the crimson caputal & thoracic ornamentation & by the white costal edge of the primaries " GPK Tr. A.E.S. 1. 331



full & veins  
 2  
 6 *Clonocha*  
*Phloros* (Walk) *venosa* (Walk) GPR 7.  
*Glaucopis* " Mor 16.  
*Clonocha* " Mor Syn 286. Clon.

In pl 26  
 fig 1. coll of Ent Soc Phil.

Hab Mex. Tex. (Mor Syn.)

deris?

*Nemecophila* (Grote) *geometroides* (Grote) L & R 7. GPR PEST 4 p 312. pl 2/fig 1.  
~~*Eufryas*~~?

In pl 50  
 fig 5: /m Grote fig

Hab Color. (Gr.)

Note *Legia* genus. allied to *Clonocha* nearation somewhat like *Eufryas*. (Gr.)



*Lycomorpha pictus*. Lathr. 23 Ann. Rep. N. S. Calamish  
nat. his. 61  
frequently. flowers of golden red.

*Lycomorpha Miniata* (Pack.)

Sp. fr. Dr. E. W. Smail collected Des. pl. 102  
in South California (?) (2 or 3 sk)

*Lycomorpha palmeri* - Pack.

104/8.  
Des. pl. ~~102~~ fig 10. sp. from Dr. Palmer  
Arizona





Deris?

*Cybozia* (Metc.) *aurivitta* G.R. p. 7 Tr. Am. Ent. Soc. 2. 1886.

Sp. fm cabinet of Boston Soc. Nat. Hist. Ins. pl. 105.  
 Hab. Texas (Bepage) by labelled. Texas fig. 12. Texas.  
 Image this mag. & June (G.R. Tr. Am. Ent. Soc.)

*Cybozia* *immetella* Stetch. *nobilitella* (West.) G.R. p. 7. Tr. Am. Ent. Soc. 2. 1886.

*linea* " " Cramer. Ins. pl. 105.  
 Hab. Texas Sp. in cabinet of Boston Soc. Nat. Hist. fig. 6. Texas.

*Cybozia* *aurea* (Fitch) G.R. p. 7.  
*Acropia* *aurea* Fitch.

Deris? *Oeta* (Grote) *compita* Grote G.R. 7. Riley 1<sup>st</sup> Rep. Mo. p. 157. pl. 2. fig. 22 & 23.  
 ornamented, or adorned? *Rosioptera* || " *clon*. (name previously employed for another sp.)

Larva spins a web & lives gregariously among the leaves of the *Ailanthus* devouring the foliage. Ins. pl. 97.  
 Insect taken also in the District of Columbia but as yet very rarely. fig. 647. Illin coll. of Mr. Riley.

Moths "first seen" late last Oct. Spins from the winter in the perfect state pupa comes in the web. Riley 1<sup>st</sup> Rep. Mo. p. 151.

Hab. Geo. Washington D.C. (H.) Illin (Riley) Food plant *Ailanthus*

Georgia }  
 seen note } This caterpillar spins webs amongst the leaves of the *Ailanthus* so as completely to cover the twigs here they live & change into the chrysalis, in October the caterpillars young & old. chrysalids & perfect moths may sometimes be seen in the same loose nest of silk - the caterpillars are very active when disturbed & run backwards & forwards along the threads forming the nest, & I clearly perceived suspend themselves in mid air by means of a silken thread issuing from their mouth.







from. List of the Lepidoptera of North America  
by Aug R Grote & C S Robinson 1. Phil Am. Ent Soc 186

Arrangement of Families & Genera

Bombycidae

Lithosiinae

<i>Hypopneptis</i>	Hüb	page 7.
<i>Euthene</i>	Walk	"
<i>Lithosia</i>	Sab.	"
<i>Grambada</i>	Pack	"
<i>Eustixis</i>	Hüb	"
<i>Clemensia</i>	Pack.	"
<i>Euphanesia</i>	Pack.	"
<i>Lyssauxis</i>	Hüb	"
<i>Crocata</i>	Hüb.	"
<i>Methesia</i>	Hüb	"

Urethiinae

<i>Callimorphia</i>	Latr	8
<i>Epicalia</i>	Hüb	"
<i>Platartia</i>	Pack	"
<i>Eupneptis</i>	Germ	"
<i>Callanctia</i>	Pack	"
<i>Arctia</i>	Schrank	"
<i>Homocophia</i>	Stephens	"
<i>Scerartia</i>	Pack	"
<i>Ectypia</i>	Clem	"
<i>Pyrrharctia</i>	Pack	9.
<i>Phragmatobia</i>	Steph	"
<i>Ontartia</i>	Hüb	"
<i>Leucartia</i>	Pack	"
<i>Spilosoma</i>	Steph	"
<i>Hypomantia</i>	Har	"
<i>Euchaetes</i>	Har	"
<i>Arachnis</i>	Hüb	"
<i>Epanthesia</i>	Hüb	"
<i>Calsidota</i>	Hüb	"

Dasychirinae

<i>Orgyia</i>	Ochsen	"
<i>Parorgyia</i>	Pack	"
<i>Larva</i>	Curtis	"
<i>Canama</i>	Walk	40
<i>Lagoa</i>	Har.	"

Cochliidiinae

<i>Euctea</i>	Hüb	p 10.
<i>Parasa</i>	Moore	"
<i>Monolucca</i>	G&R	"
<i>Nochelia</i>	Clem	"
<i>Eupneptis</i>	Clem	"
<i>Phobothron</i>	Hüb	"
<i>Limacodes</i>	Latr	"
<i>Lithacodes</i>	Pack	"
<i>Packardia</i>	G&R	"
<i>Adoneta</i>	Clem	"
<i>Heterogenea</i>	Musca	"
<i>Kronaea</i>	Reakirt	"
<i>Ira</i>	Pack	"
<i>Torbreidia</i>	Pack	"

Psychiinae.

<i>Psyche</i>	Ochs	10
<i>Phryganidia</i>	Pack	11
<i>Thysanopteryx</i>	Steph	"
<i>Lacosoma</i>	Grote	"
<i>Perophora</i>	Har	"

Ptilodontinae

<i>Ichthyura</i>	Hüb	11
<i>Apatodes</i>	Pack	"
<i>Natana</i>	Walk	"
<i>Nadata</i>	Walk	"
<i>Hyporhax</i>	Hüb	"
<i>Glyptis</i>	Bedw	"
<i>Notodonta</i>	Ochsen	"
<i>Lophodonta</i>	Pack	"
<i>Theosia</i>	Hüb	"
<i>Merice</i>	Walk	"
<i>Ecdema</i>	Pack	"
<i>Scurodonta</i>	G&R	"
<i>Oedemasia</i>	Pack	"
<i>Dasylophia</i>	Pack	"
<i>Schirura</i>	Doubled	"
<i>Calodasya</i>	Pack	12
<i>Tanassa</i>	Walk	"
<i>Heterocampa</i>	Doubled	"
<i>Lochmaeus</i>	"	"
<i>Platyserura</i>	Pack	"
<i>Cerura</i>	Schrank	"

Platypteryginae

<i>Drepana</i>	Schrank	"
<i>Platypteryx</i>	Lathropes	"
<i>Dryopteris</i>	Grote	"

Attiacinae

<i>Tela</i>	Hüb	13
<i>Aclias</i>	Leach	"
<i>Attacus</i>	Lin	"
<i>Samia</i>	Hüb	"
<i>Callosamia</i>	Pack	"
<i>Platysamia</i>	Grote	"
<i>Saturnia</i>	Schrank	"

Ceratocompinae

<i>Hemicucini</i>		1
<i>Hemicucina</i>	Walk	13
<i>Pseudoharis</i>	G&R	"
<i>Coloradia</i>	Blake	"
<i>Hyperichia</i>	Hüb	"

Nyrocompini

<i>Eacles</i>	Hüb	13
<i>Aethronia</i>	Hüb	13
<i>Adelocephala</i>	Bedw	"
<i>Amisota</i>	Hüb	"
<i>Nyrocompa</i>	Har	"

Lachneinae

<i>Pastorapha</i>	Ochs	14
<i>Talysa</i>	Hüb	"
<i>Artax</i>	Walk	"
<i>Clasicampa</i>	Curtis	"

Hepialinae

Cossini

<i>Xyletus</i>	Hüb	14
<i>Teusera</i>	Sab.	"

Hepialini

<i>Sthenopsis</i>	Pack	14
<i>Hepialus</i>	Lin	14

A Synopsis of the Bombycidae of the United States by A. Packard Jun.  
published in the proceedings of the Entomological Society of Philadelphia vol 3 p 97  
1864 is here given in order to show the differences between it & the last list published  
by Mrs Grote & Robinson published by the American Entomological Soc. Phil 1868

### Subfam Lithosiinae Stephens

<i>Hyphoprepia</i> Hüb	198
<i>Crumbidia</i> H G	99
<i>Eustixis</i> Hüb	100
<i>Minea</i> Walk.	100
<i>Clemensia</i> H G	100
<i>Euphranta</i> H G	102
<i>Euthene</i> Walk	102
<i>Enocata</i> Hüb	103
<i>Wichia</i> Hüb	103

### Fam Arctiidae Leach

<i>Callimorpha</i> Leach	106
<i>Epicallia</i> Hüb	108
<i>Platanota</i> H G	109
<i>Hyphoprepia</i> Germar	104
<i>Callareta</i> H Gen	114
<i>Arctia</i>	115
<i>Semiarctia</i> H Gen	119
<i>Pyrpharctia</i> H Gen	120
<i>Antarctia</i> Hüb	122
<i>Phragmatobia</i> Steph	122
<i>Lithocorda</i> H Gen	124
<i>Spilosoma</i> Steph	125
<i>Hyphantia</i> Har	126
<i>Arachnis</i> Hüb	127
<i>Ephanthoria</i> Hüb	127
<i>Haliadota</i> Hüb	128
<i>Euchaetes</i> Har	130

### Subfam Dasycteninae Hüb

(See P&P 2 p 331)

<i>Orgyia</i> Ochsenheimer	331
<i>Parorgyia</i> H Gen	332
<i>Lagoa</i> Har	333

### Subfam Cochlidinae Hüb

<i>Euclea</i> Hüb	336
<i>Callochloa</i> H Gen	339
<i>Noctelia</i> Clem	340
<i>Empuncta</i> Clem	340
<i>Phobetrum</i> Hüb	340
<i>Udoneta</i> Clem	340
<i>Limacodes</i> Latr	340
<i>Pacharcia</i> G&P	
<i>Cyrtosia</i> Pack H Gen	342
<i>Cyclopteryx</i> H Gen	344
<i>Lithacodes</i> H Gen	345
<i>Heterogenea</i> H Gen	346
<i>Ira</i> H Gen	347
<i>Yortinoclea</i> H Gen	347

### Subfam Pergeiidae Bdr.

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<i>Thysidopteryx</i> Stephens	350
<i>Cacticus</i> Guelding	350
<i>Lacosoma</i> Groe	351
<i>Perophora</i> Har	351

### Subfam Ptilodontes Hüb.

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<i>Cecrita</i> Walk	359
<i>Edmasia</i> H Gen	359
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### Subfam Platystericidae Steph

<i>Platysteryx</i> Latreilles	375
<i>Edasteryx</i> H Gen	376
<i>Dryopteryx</i> Wrote	377

### Subfam Bombycinae Hed.

<i>Telca</i> Hüb	378
<i>Tropaea</i> Hüb	379
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### Subfam Ceratocampidae Har

<i>Eutheronia</i> Hüb	381
<i>Euclea</i> Hüb	381
<i>Eucronia</i> H Gen	382
<i>Hemileuca</i> Walk	383
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### Subfam Lachneidae Hüb

<i>Gastropacha</i> Har	386
<i>Solysa</i> Hüb	386
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### Subfam Hepialidae Har

<i>Xyletus</i> Hüb	388
<i>Hesperia</i> Fab	390
<i>Stenopis</i> H Gen	390
<i>Hepialus</i> Lin	390

*Nephrolepis sulcata* L. dusky, thinly covered with stiff sharp banded bristles growing singly from small wart.  
 9s. deep scarlet. fore wings with 2 broad stripes & a short stripe between them at tip  
 of lead color hind wings with a broad lead colored border behind mid abdomen &  
 joints of legs, lead color, 1.12/2





*Phanerocera* the *Ph. wendii* & complete list.

*Eustixia subfervens*  
*Huscauxis modesta*  
*Proctos brevicornis*  
*hypericatus*  
*miniaculata*  
*Callimima clypeosa*  
*interrupta marginata*  
*Epicallia guttata*  
*Platarchia borealis*  
*hyperborea*  
*scutellaria*  
*modesta*  
*Callarchia ornata*  
*Arctia complicata* *himaculata*  
*gelata*  
*speciosissima*  
*partheneis*  
*Neuroperla petrasa*  
*californica*  
*rupula*  
*Leucarchia olis*  
*Elysius bimaculata*  
*Pertharchia californica*  
*Phragmatodes vagans*  
*assimilans*  
*Leucarchia californica*  
*Spilosoma vestalis*  
*Euchlaena elegans*  
*Uraethus picta*  
*Haliopsis cinctipes*  
*californica*  
*agassizii* Pack  
*edwardsii*  
*argutata*  
*hirsuta*  
*Antipholia*  
*Orygia aspinata*  
*velutina*  
*Eumoryia achatinia* S&A  
*basiflava*  
*clauseniana*  
*plagiata*  
*Lurion* — *lurion*  
*Laza* *crispata*  
*Eucala* *arguta*  
*guineicola*  
*Neomima tardigrada*  
*Limacodes hyalinum*  
*supercans*

*Phaenocarpa fusca*  
*geminata*  
*albipuncta*  
*Uronota spinulosa*  
*leucostigma*  
*pygmaea*  
*Krona murina*  
*Leptocidia flavula*  
*pallida*  
*Ichthyura curvilinea*  
*curvata*  
*ovata*  
*vau*  
*Nadata doubledayi*  
*Lophodonta georgica*  
*peruviana*  
*humilis*  
*humidula*  
*Edema producta*  
*Eurodonta heliophila*  
*musculina*  
*Cerita guttata*  
*Edmanina sulcata*  
*batia*

Continued p 82



*Eustora pupula* Hb. *Sp. Pl.* Vol. 18, p. 2  
 L. f. on *Sideroxylon texan.*  
 on *S. tex.* & *S. tex.* & *S. tex.*

dew?

*Grambidea* (Pack.) *pallida* (Pack) GHR. 7. Pack PESP. 3. 99.

pale color

Ins taken Brunswick Maine Aug 5.

Ins 26  
at 28? Md.

Hab Mass. Maine

Ins 22  
fig 17. coll of Mr Sanborn

dew?

*Eustixia* (Kühn) *fulvula* (Hüb. 184. - 40.) GHR. 7. Pack. PESP. 3. 100*Eustixia* (Lachn.) (Geyer)*Mexia* *ignitrix* Walk. Mor Syn. 253. 306. Pack. PESP. 3. 100\* *Mexia* *subferrens* " Mor Syn. 253. Pack. PESP. 3. 100*Mexia* *lacta*. GHR. Tr AES. 2. 71 (cor Walk list)Ins pl 71  
fig 13. coll of Mr Sanborn.

Hab Texas. "La. Mor Syn.

M. *subferrens* seems distinct from the foregoing. GHR. Tr AES. 2. 71*Eustixia* *subferrens* GHR. 7.*Mexia* " Walk

Spec. distinct? GHR.

somewhat glowing  
or burninglynote in Pack PESP. *subferrens* is mentioned as a syn of *ignitrix*. PESP. 3. 100.

Clemens. "

*Clemensia* (Pack) *albata* (Pack) GHR. 7. Pack PESP. 3. 100*Repa* *cana*. Walk GHR Tr AES. 2. 882 *Uxia* *albata* Walk.Ins pl 58  
fig 4. Md.

clothes in white

Hab Maine (Pack, Ma S. G.) Can rare (Pambers)





28 well  
 Quarts transparent  
 poor or luggarly

*Euphanessa* (Pack.) *meridica* (Pack) G & R 7. Pack p. E & P. 3. 103.  
*Didule bisoriata* H. Sef.

*Nudaria meridica* Clem. Place Masé Phil 543. Mor Syn 300  
 ? *Nudaria cinerascens* Brit Mus.

*Nudaria* known as Mullen moth in England Newman 26. Sp 62  
 fig 4. Ma

Ins. common in Maine in low swampy grounds  
 or dry pine woods in July also common in Canada (Saunders)

Hab. Mass. Maine Can west (Pack) Pa Ny (Mor syn) Ma FL.

? deni

*Lysanxia* Hüb *mediastina* Hüb G & R 7.

*mediastina* a blue  
 employed in mineral  
 occupations

*Is it Crocata or Crocata?*

epheos yellow  
 cōs car,

*Crocata* (Hüb) *opella* (Grote) <sup>5467</sup> G & R 10 E & P. 2. p. 30 fig 1. 4661 p. 345. Pack 10 E & P. 3. p. 105.

Ins very common in Ma.

Ins fig 51  
 fig 14 Md. 56 25 var Md 58 3 Md

*opella* right work  
 or scroote

Ins fig 73  
 fig 18 q fm Grater/fig

Hab Can. "Pa" Grote Md (FL)

*quinaria* a blue or  
 containing pink

*Crocata quinaria* Grote <sup>5467</sup> G & R 10 E & P. 3. 30 p. 2 fig 2. Pack. 10 E & P. 3. 105.  
 " *choriona* Reak's 10 E & P. 2. 371. Pack. 10 E & P. 3. 105.

Ins fig 73  
 fig 19. fm G & R fig

Hab Phil (Reak's) Mass. (Saunders)

" resembles *C. rubicundaria* in size but very distinct (Grote)

ruficand or rufy.

*Crocata rubicundaria* Hüb G & R 7. Pack 10 E & P. 3. 103. Mor Syn. 256 307.  
 (error) *Arctia rubicundaria* Syn. Mor Syn 307. G & R. Tr. A & S. 2. 71. Clem. PANS Phil 1860 p. 541.

Ins fig 57  
 fig 12, 13. Md

Hab Geo. Mass. (Pack) Can. (Saunders) Va. Md (FL) common.

\* put in fam *Hypocidæ* (Clem.)

feruginous or  
 dark color

*Crocata* <sup>rubicundaria Hüb</sup> *feruginosa* (Pack) G & R 7. Clem. PANS Services. Phil 542. 1860 Mor Syn. 256 307.  
~~*rubicundaria* (or *Arctia*) is a var~~ Pack 10 E & P. 3. 103.  
 G & R Tr. A & S. 2. 71

Ins fig 58  
 fig 38 coll of Mr Saunders Can.

" caterpillar with fine brown hairs " MSS Dr Barnston (Pack)

Hab NY. Hudson bay. Mass. Maine (Pack) Can common (Saunders) Lacoma (Can Ent 1. 12)

*Decopea bella* fig<sup>d</sup> Riley 5<sup>th</sup> Rep. Mo. 1873. p. 11

*Decopea aurea* Litch. Tr. NBS Ag. Soc. 1856. vol 10, p. 486.

fore wings bright marigold yellow with 4 bands pale round suffused yellow  
spots upon a brilliant steel blue ground the hindmost band almost upon the  
mid wing transparent with dusky margin blackish veins. with 1 inch  
lat Savanah Geo.

Lactus joyful cheerful

short round.

*Crocata brevicornis* Walk. GHR 7. Pack PESP 3.104.

error bar *Crocata nubsundaria*] Walk.

2 *Eutapha urantica* Hüb. Pack PESP. 3. 103.

referred by Pack. from Harris specimen (Lake Sup.) to *C. ferruginea* of Walker Pack MSN  
3/103

major black on back. *Coccyzus nigricans* Reakirt. PEST. 2 371. GPH 7. Pack PEST. 3, 105.

Hub Pa

without spots

*Crocata immaculata* Reak. 1<sup>st</sup> Sp. 2. 371. GGR 7. Pack 1<sup>st</sup> Sp. 2. 103.

Hab Ru.

*T. fulva*. ♂. stated by Denny to be an apollon which dotted with black.  
 1.50. ♂. hairy bristles formed antennae fore wings deep yellow  
 1.75. crossed by about 6 white bands, on each of which is a row of  
 black dots, hind wings scarlet red with an irregular border  
 of black behind, body white thorax dotted with black.

? deriv  
one who

one who adorns.

*Utetheisa ornatrix* Hübn. G & R 7.

Noctua

" *Pisces*

Ans pte 51

fig 32 Md.

var.  $\alpha$  *Urtettheisa* bella. Hübl Pack PESP. 3. 105.

Wethers  
Lima

LP Ins pl 86

fig 8. Ma.

" B. *Utetheisa speciosa* <sup>form</sup> Gr

Devo re

*Speciosa* Fra

" γ *Deiopea* *ornatrix* Hüb.

noctua

" Lin

*Sciöpea bella* of Mor (Dunry) 25. Mor Syn 257. Har. 342.

*Desipha pulchella* of Europe known as crimson speckled. Newman p 30 If you are forget me not

habits, really secured  
taken at 4 o'clock PM flying  
over blossoms, / Heliothrips

Harris states that the European *D. pulchella* in the Larva state feeds on the mouse ear. (forget me not) *Microtus palustris* & *arvensis* I suggest that our *D. bella* may feed on the same plants. P. 343

larvae found very abundant in the seed pods of the Rattle box or weed (Crotalaria) the caterpillar having first eaten a large round hole in the outer envelope, enters the pod where it hides itself & devours the seeds. This habit of concealing itself in the pod renders it very difficult to be found even when sweeping the meadows with a net. I have searched diligently for this caterpillar on Forget me not & Cud weed but could never find one on either plant. The larva however being allied to the rattle box, may probably serve also as its food. Mr Saunders of Canada states that this insect is rare near London Can. but in 1866. was particularly abundant near Grimsby Can., it is exceedingly abundant in parts of Ma. pupa state lasts only about a week, or 10 days in (pupa?)

Good plants. Forget me not? Cudweed? Lupin<sup>s</sup> & Rattle box.

Hab. Tex Fla nova scetia (Nov Syn.) White Mtns Mt. Ma. West n St. Texas (Pack) Ma (G) Can Saunders  
2 Jan 1875

\* of gold or golden

*Neopea aurca* Fisher 3<sup>d</sup>. Rep. NY 168. 1860. probably a var. *Georgii*

*Callimorpha* (aff. *elymene*)

Presented to Dept. by Mr. Hatzbrodt of  
Texas.

Hab Texas.

Ins fig 107  
1910.

*Cream Callimorpha* Riley

*Callimorpha fulvicosta* Clem. Riley 3<sup>d</sup> Rep. 1882

*C. vestalis* Peck 3<sup>d</sup> Ent Soc. Phil 3. 108 (Syn. Riley) as 3<sup>d</sup> 90 fig 26

*Hypercampa fulvicosta* Clem. 1880.

young larvae found during winter or early spring on apple & especially  
Peach trees. feed upon the young leaves as soon as they bud and they and  
of apple have attained full size. the caterpillar then spins a ~~and~~ slight  
cocoon of white silk in any sheltered place. Ins appears the fore part  
of June.

S. velvet black above pale bluish speckled with black below. an orange line along  
back & a more distinct ~~very~~ ~~more~~ ~~broken~~ one along each side the wings  
are steel blue & granulated. covered with radiating stiff yellow hairs.

Dr. milk white or cream colored. with head, collar basal & apical joints above  
& the whole body legs & anterior margins of wings, fulvous or dull orange.

Found Mount Peach.  
found on Apple.

L. 108  
16. Riley  
90/26. Rams











*Anetia rufa* Ins. smaller & less highly colored than a male. Fleck color fading to rufous on fore wings with streaks & small triangular spots of black, hind wings deeper color. 5 to 8 black spots. 2 black spots on collar. 43 on thorax abdomen color of hind wings with a longitudinal row of black dots on top & 2 rows of a larger size beneath. 175 to 200.

Lar. dark greenish gray appearing almost black from the multitude of black spots. 3 longitudinal stripes of flesh white on back & a row of kidney shapes. Fleck dots on each side make dark gray producing a thin cluster of hairs. 150

ornamented

*Callanctia* (Pack) *ornata*. Pack GVR 8.

Hab Calif. Pack.

apertis an  
offering or consecration  
achia a fine vine  
or Greece.

*Arctia* (Schrank) *achia* GVR. GVR 8. GVR Am Lep. p. 13 p. 12. & Tr Am Ent Soc. p. 234  
Arctia in Europe known as *Emmisia mitchii* newman in *staphylearia*. pl 6 fig 45 & 46.

Ins. pl 90  
figs. 10. fm GVR fig

Hab Calif.

Note "allied to *A. virgo* & *Saundersii* of the Atlantic dist." GVR

anna

*Arctia anna* GVR. GVR 8. GVR PESP. 2 p. 335. pl 8 fig 1. Pack PESP. 3. 116.

Ins. pl 79  
fig 17 fm GVR fig.

Hab Pa. (Gr.)

argo

*Arctia argo* Har GVR 8. Mor 24 Pack PESP. 118. Har 346.Doubtful " *Stargy*.*Phalaena discis* SVA. pl 63. Clem 528*Arctia* " Mor syn 340. Clem 528.

Lar. pl 8.  
fig 1. Plantain Md. aug.

Streaked American tiger (SVA) *Arge tiger* (Har)

Ins. pl 54  
fig 8 Md.

Larvae. "make great devastation among Indian Corn SVA in Geo.  
They feed indiscriminately on Herbaceous plants, peas Plantain &c.

Pupa formed in a loose cocoon composed of silk with the hairs of  
the caterpillar interwoven. Spun cocoon 28th Aug (Geo)

Ins. appears May to July (Mass) quite common (Md) "not common  
about London" Can (Saunders note)

Food plants Herbaceous plants Maine Pas Plantain

Hab. N.Y. Mass. (Pack) Geo (SVA) Can (Saunders) Md. (LG)

shakes

*Arctia Blakesi* GVR. GVR 8. GVR PESP. 3 p 523. pl 5 fig 2. Pack 0.Blakes *Arctia*

Ins. pl 74  
fig 10 coll of Ent Soc Phil

Hab Colorado (Findings)

celia

*Arctia celia* Saunders PESP. 2 p 59. GVR 8. Pack PESP. 3. 116.  
(a var of *A. figurata*. GVR 8.)

Ins. taken by Mr Packard Maine, Aug. Ins. pl 59

Lar 11 Ins. & Pup. 13th Jun. Ins 30 June 1876. 2. 3. coll of Mr Saunders  
descrip Can. Can. (not 3/76)

Hab. London &amp; Toronto Canada rare (Saunders)

Maine (Pack) Mass. (Sanborn)





? *Arctia dahurica* (Walk.) GHR 8. GHR Am Lep. p. 3 p. 14. pl. 6 fig 41 & GHR Tr. & S. 1. 336.  
*Chelonia* " Bds. Pack P.E.S.P. 3.

Hab Calif. Siberia (Mor. syn.) Alutian Islands (GHR.) Ins. pl. 90  
 fig 3. fm GHR fig

" allied to *A. virginica* of Atlantic Dist.  
*A. complicata* of Walker is of a pale yellow color & see GHR & A.E.S. p. 117.

*decorata* *Arctia decorata* ♀ Saunders. (Var. α of *A. Nais* GHR 8.) Saunders P.E.S.P. 2. 60  
*Apantesis radiata* ♀ Walk (aberr.) GHR. Tr. & S. 2. 69 Grote P.E.S.P. 3 p. 77. pl. 1 fig 4.  
*Alca colorata* ♀ Walk. " " " "

for habits &c. see *A. Nais*. of which it is Ins. pl. 79  
 a var. fig 14. fm GHR fig

Hab London & St. Catharines Can rare (Saunders notes)

*figurata* *Arctia figurata* Har. GHR 8. Pack P.E.S.P. 3. p. 117. Mor. Syn. 341.  
*Bombus* " Drury  
*Arctia celsa* var. Saunders. (see celsa)  
*Nemophila figurata* Mor Cat 25

Ins. taken July Md.

Pa. N.Y. (Pack) Va (Mor. var)

Va. Md (S.G.) Ga (Wilt)

Ins. pl. 20  
 fig 28 Ma. 53 58  
 2 Ma.

Ins. pl. 74  
 11. coll. of Mr. Wilt Phil

*low/shoulder* *Arctia complicata* Walk GHR 8. Pack v

*wholly cold on* *Arctia gelida* Mösch GHR 8. Clem P.A.N.S. Phil 528. Mor. Syn. 341.  
*morris*

*Labrador*

*most recorded* *Arctia speciosissima* Mösch GHR 8. Pack v.

? is this. quensell. p. 64

*Arctia bimaculata* Hb. Saunders Can Ent 2. p. 5

Young lar found 24<sup>th</sup> Apr under logs near London Can  
 pupa 22 June  
 Ins 6<sup>th</sup> July.

Hab Can Canada

food plants. Lamb's quarters & *Sanicula* &c







*Arctia partunicia* Har } Pack P&SP. 3.116. Mon Syn (var. *virgo*) 339.  
*Gallimorphia partunicia* G&H list O. not mentioned as a syn of *virgo* G&H list 8

Lar. for description on Saunders P&SP. 2.428 this larva hibernates when partly grown & completes its growth the following spring & feeds readily on Lambs quarters & even on grass.

Note " Mr Saunders has shown by the larval characters that this species is quite distinct from *A. virgo* in Maine it is our most common species apparently late in May & Aug. (Pack P&SP. 3.116)

Hab Maine (Pack), Can (Saunders)

*Arctia phyllia* Har G&H 2 Mon 24. Mon Syn 339. SGL pl 64  
 Bombyx " Henry.

*Arctia phyllia* Har. Pack P&SP. 3.116 Clem P&SP. 528 Har Rep Ins May 245. 1841  
 (Har. p. 347.)

*Euphygia phyllia* Hüb

Lar. p. 8  
 fig 6. no food mentioned.

Common American tiger moth SGL.

Ins p. 34

Larva spun cocoon. 5th Apr. 2d brood 27th May (Geo) fig 17. Md.

Ins appeared 24. Apr., 2d brood 16 June & continue breeding most of the summer. in Geo.

Ins. fore wing with one black longitudinal line 2 transverse lines over the tip being 2 zig zag lines forming a V of buff Food plants Corn Grass wort. Peas Wheat &c. SGL.

Hab Mass. Ny. (Packs) Md (SGL)





*Placentia* 2 lines.*Uroclia placentia* Walk. GGR 8. Mor Syn. 337. Pack PESP. 3. 118*Phalaena* " Sm. & Abbot pl 65.

Great American Tiger SVA.

Lar spun cocoon 17<sup>th</sup> Apr (Geo)Ins appeared 11<sup>th</sup> May.L pl 20 Ins pl 66  
fig 20 SVA. fig 20 fm SVA

Food plants Blackberry Corn peas. (SVA)

Has "This insect as far as we know has not been taken outside of Geo. (Pack)

*Uroclia quensellii* (Geyer.) GGR 8. Pack PESP. 3. 117. Clem PLS 1866. 527var. *speciosa* - (Samb correction)

Ins specimen taken in N Hampshire

Ins pl 93  
fig 15 coll of Mr Santon

Hub Labrador (Pack) N Hamp. (Santorn).

Pbs. note "there is a speciosissima" GGR 8. of Mosch. but no speciosa

*Uroclia*Specimen in collection of Dr. E. Ernst sent to Lfpt. Ins pl 11  
& taken in South Calif. fig 11



Saunders

*Arctia Saundersii* (Grote) GHR. 8. Grote PESP. 3, p. 75. pl. 4 fig 3  
*virguncula* [error Saunders]. GHR. P. 8. Grote. PESP. 3, p. 75. 6. Pack PESP. 3, 117.  
 "Saunders *Arctia* or tiger moth.  
 Saunders' Ins. June deposits its eggs, only July the larvae remain over all winter complete growth in spring  
 Ins not uncommon London Can (Saunders notes) Ins pl 70 coll of Mr Grote  
 Saunders. Can Ent. 1/27 fig 16 Coll of Mr Grote

virgo a virgini

*Arctia virgo* (Har.) GHR. 8. Pack PESP. 3, 115. Mor Syn 588 Har 343.  
*Bombyx virgo* Linn S & A pl 62. Can Nat. 223.  
 \* *Arctia parthenice* Saund. PESP. 2, 28. Grote PESP. 3, 325  
 ? *Callimorpha parthenice* Kirby. GHR. 8. (Goss) Can nat. 260.  
 " " a var. Mor Syn. 338. Lar pl 8  
 " " " " fig 7. on Cotton Oak Geo. 74.  
 Large american tiger S & A. Ins pl 54  
 Virgin tiger moth. Har fig 16 Md.

Larva hibernates when partly grown & completes its growth the following spring (Can) & are very apt to die when in confinement.  
 Pupa remains in the cocoon about 4 weeks. (Can, June & Apr (Geo)  
 Insect appears about July & exhalates a very disagreeable odor.  
 like most of the other species of *Arctiinae*. May & Sep (Geo)

2 heavy dark grayish Ob. Cauda etc. brown.  
 1. Brown freely thickly covered with tufts of brown hair  
 2. Fore wings flesh red shading to mid-dorsal suff. covered  
 with stripes blackish oblique. Ventrals blackish brown except  
 submargin with 7 or 8 large white blotches under  
 Side of body black upper side uniform caudal row  
 of white spots close together along edge of back. 2.  
 black spots on sides 4 & 3 on thorax.

Food plants *Mimosa* Willow herb (S & A)  
 Lambs quarters & grass (Saunders)  
 Indian weedup (Can nat.)

Hab NY Mass. S<sup>(P)</sup> Geo (S & A) SC. Ma IG. Cotton (FG)  
 Can. East & west. Southern St. Gr. PESP. 3, 325 *Simplex carpus* f. *fulvus* Gr. PESP. 3, 326  
 \*\* Can. (Saunders notes) not uncommon

\* *Arctia parthenice* appears to be a Canadian var. of *virgo* see *parthenice*  
 \*\* Mr Saunders in his notes states "I am not certain that this is the same *A. virgo*  
 of which Hübner speaks." prob. it may be the var *parthenice*.

*virguncula*  
 a little virgini

*Arctia virguncula* (Pack) GHR. 8. Clem PESP. 528 Pack PESP. 3, 117.  
*Callimorpha virguncula* (Kirby) Morr (Kirby) 24 Mor Syn 334  
*Arctia nax* [error Saunders].

Ins pl 65  
 15. coll of Mr Sanborn

Hab Mass Maine (Pack) Can (Mor Syn) Can rare (Saunders)

*Arctia* ?

Insect sent from Texas by Dr Linnicum

Ins pl 85  
 fig 36. Texas

Hab Texas

*Arctia* ? *Emerythra*. *Phasma* Harvey

Insect sent by Dr Palmer from the Chickasaw nation

Ins pl 95  
 fig 7. Chickasaw  
 nation.

Hab Chickasaw nation





*Arctia* ?

Larva taken on persimmon in Florida Sep.

Lar. pl. 8  
fig. 17. Fla.

Hab Fla. (Fg)

Food plant Persimmon

*Arctia* ?Larva forms webs & feeds on Willow in the  
Southern States. in OctoberLar. pl. 8  
fig. 11. South. St.

Hab South. St. (Fg)

Food plant Willow

*Arctia* ?Larva found running on the ground it is extremely  
nimble in all its movements but would not feed  
in confinement & died before making its cocoon.Lar. pl. 13  
fig. 10. Ma.

Hab Ma. (Fg)

may it not be the young of *Ecpantheria scribonia*?  
see also pl. 14 fig. 17. of *Ecpantheria scribonia* pl. 8, fig. 12*Arctia* ?Larva found feeding on the foliage of Rose bushes Ma.  
but died before forming any cocoon.Ins. pl. 19  
fig. 12. Ma.

Hab Ma. (Fg)

Food plant Rose

*Arctia*

(Ma)  
Larva fed upon the fruit of the Whortleberry only. Lar. pl. 19  
not touching the foliage at all. another specimen also  
taken in Ma fed upon the foliage of the Wild Indigo  
(*Baptisia*) both of them were very restless when in confinement & died  
in a few days. may this not be the young caterpillar of  
*Ecpantheria scribonia* which it somewhat resembles see  
pl. 8 fig. 12

Food plant Foliage Wild Indigo *Baptisia lucida* (Fg)  
& fruit of Whortleberry (Ma)

Hab Ma. (Fg)



*Nemec. piosifrons*  
caespit. etc.  
of a long or club

*Nemecophila* (Stevens) caespites GVR. GVR 8

Pack 0 Mor 0

GVR Am Lepid pt 3 p. 15 pl 6/fig 438  
GVR Tr. A.S. 1. p. 377

Calif. (GVR)

Ins pl 90  
fig 7 GVR fig

*chicorii* plant

*Nemecophila chicorii* GVR. GVR 8

GVR. Am Lepid pt 3 p. 16. pl. 6/fig 44  
GVR Tr. A.S. 1 p. 338. Pack 0 Mor 0

Ins pl 90  
fig 1 GVR fig

Calif

"smaller than *N. caespites* & readily distinguished by the black fringes & clear yellow bands of the upper surface of primaries the larvae are also stated to be distinct & to be found on different food plants" GVR.

*petra* a stone

*Nemecophila petrosa* Walk. GVR 8

Pack 0 Mor 0

Ins pl 102  
fig 14

Californica

*Nemecophila californica* Walk GVR 8

Pack 0 Mor 0

*rugulosa* reddish

*Nemecophila rugulosa* Bdr. GVR 8

Pack 0 Mor 0

*Nemecophila*

specimen from Fr. E. & must  
taken in South Calif.

Ins. pl 102  
fig 14. 5 var.

*Nemecophila*

f'

ls. from Fr. E. & must. taken in South Calif.

Ins pl 102  
fig 14.



*serpa strigata*  
*urtica*.

*Tetraneura* (Pack) *echin* (Pack) G.H.S. Pack P.E.S.P. 3. 120

*Phalaena* *cota*. S.H. pl 68.

*Hypophantia* " Clem 531. 1860.

*Spilosoma* " Mon. Syn. 342.

(Black streaked ermine S.H.)

Lar. pl. 10 Ins. pl. 66  
fig 22. S.H. fig 15. from S.H. fig

Larva commenced cocoon 31. May Geo

Insect emerged 23rd Aug then set on the 14 April the following Spring S.H. Des

Food plants Ground Oak. S.H. Persimmon. Geo S.H.

Hab Geo (S.H.)

*Tetraneura elci*. Pack. G.H.S. Pack P.E.S.P. 3. 120

Hab Calif. Edwards (Pack.)

2. striped

*Ectophaea* (Clem) *livittata* (Clem) G.H.S. Pack 0. Mon 0.

apples yellowish red

*isabella*

*Pyrrharchia* (Pack) *isabella* Pack. G.H.S. Pack P.E.S.P. 3. 121. Pack Guise 286.

*Phalaena* " S.H. pl 66

*Spilosoma* " Clem p 531. 1860.

*urtica* " Mon. Syn. Appen. 340. Mar 24 Mar. 366.

Lar. 8

fig 9. 10 Ma

*cream spot* *isabella* S.H. *isabella* tiger. Har.

and. *Forest* worms. Mo. Can Ent. 2. 1825

(Ma) feed on grass *Hyphantia* 9?

Larva when disturbed rolls itself into a ball like a hedgehog it remains all winter in the larva state in sheltered places until the spring

\* *Pupa* formed in an oval blackish cocoon composed chiefly of the hairs of its own body it remains in the pupa state from 11 to 35 days (Geo) Cocoon 24 June

Ins appeared 5th July (Geo) June. Mo.

Ins. pl. 54

fig 7. Ma and

Food plants. Flower Corn Dandelion Grass  
Plantain broad Marrows. Pear. &c

Hab. Mass. Maine W4. (Pack) (Clem) (Saunders)

Mo (S.H.)

1. *Phalaena* Can Ent 1/43.

Parasite ichneumon fly Fitch 173. 1st rep.

\* in Cocoon of *P. isabella* there is a slight frame work of silk upon which the hairs

in *isabella* 5<sup>th</sup> with. Riley 17<sup>th</sup> Rep. 143.

best big caterpillar on Flower plantain Dandelion

grasses &c not attacked by any parasite but destroyed by a peculiar fungus disease probably identical with the muscardine of the silk worm moths attacked by this disease faster themselves firmly to some stem & attached out naturally & appears of the clinging to it in their natural life like attitudes but hardened like wood & covered with a mildew like fungus

ck G.H.S. Pack P.E.S.P. 3 121

(Pack)







*Spharona. varjuna*,

Remedy the best time to destroy these worms is soon after they hatch  
as then they feed together - in company, Riley 3<sup>d</sup> Rep. 69

punctured or dented

*Onthoclea* (Pack) *punctata* Pack G. G. 12. 9. Pack p. E. S. P. 3. 123.

Hab. Calif.

In pl 70

Fig 20. Coll of Ent Soc Phil

*Onthoclea* (Pack) *californica* Pack G. G. 12. 9. Pack p. E. S. P. 3. 125

Hab San Francisco Calif. Pack

Kuxnos white  
arctia*Lucanella* (Pack) *acraea*. Pack. G. G. 12. 9. P. E. S. P. 3. 126 Pack. G. G. 12. 9. 287.♀ *Bombyx acraea* Servy♂ " *caprotina* Servy*Phalaena acraea* S. H. p. 67.

arctia " Harris 354

*Spilosoma acraea* Clem P. A. N. S. Phil 531. 1860. Mor Syn. 342. Mor 24*Arctia pseudocremnia* Har Man G. G. Rep. 4 Jour p. 322. 1823.

Larva Salt marsh caterpillar (Harris) Panther moth Can nat. June. 97.

Insect folie Ermine moth (Harris) or Cream Ermine moth (S. V.)

Eggs deposited to the number of 800 by one female on Salt marsh grass

Hatch in about 8 days in June (Man) Har

Larvae appear in June the late broods hibernates as Larvae

Pupa formed in a coarse hairy cocoon in sheltered places In pl 8

In June (Harris) in the south there are 2 broods in one season Fig 11. Sunflower mid July

Food plants Lyre leaved sage Salt marsh grass Sunflower  
cancer weed or *erectaria perfoliata* vegetables Clover grass

Indian Wickup Can nat. 97. mackie (S. G.)

Hab N. S. Mass. N. Y. Pa. "Mid G. G." Can (Bethune Can Ent. 1/43)

In pl 74  
Fig 5. var coll of  
Mor Well Phil

Saunders. Rept. Insect growers Asia p. 105

*Spilosoma* (Stephens, virginica) Har 1870.*Bombyx* Fab. G. G. 12. 9. Pack 1866 Clem P. A. N. S. Phil 531. 1860*Arctia* Har 351. Mor (Harris) Syn. 342. Pack P. E. S. P. 3. 125. P. O. G. 12. 9. 1065

Larva Yellow bear (Har). Insect, virginica Ermine Moth (Har.) Lar pl 8

White Miller (S. G.) Fig 15. Cotton Oct 36

Eggs. golden yellow deposited in patches on the stage June (S. G.) Lar pl 8

\* Larva. first brood change June July (Man) when very gregarious Lar pl 8

Pupa formed in cocoons of a dirty gray with intervarious with Lar pl 8

hairs placed under fences in sheltered places. Fig 18. Ma.

In June to Oct. (Man). In pl 12. 15. Ma.

May

Food Plants Beans. Butternut convolvulus Corn Cotton

Cucurbitaceae Phycanthus &amp; Phycanthus P. E. S. P. 3. 125 Currant Gooseberry grass. Grape vine Lilac Peas

" signatus Cur. Coll Ent Soc 1. 308 Plantain Smartweed Sunflower Y. C. G.

Ophion helioides Say 1. 379 occasionally Apple. P. E. S. P. 2. 103.

Musadac. sp. (Clem Ent. 2. 273)

Hab. S. C. Md (S. G.) N. Y. S. G. Har (Har) Canada Saunders Va Har (Can Ent. 1. 12.

Lar when young invariably of a black white but when full grown pale cream yellow

light brown or very dark brown the different colors appearing in the same brood of larvae

broods yearly in Mass. Can Ent. 2. 273 Birds of Prey to its diet

as a proof of the gregarious habits of this larva, a case is mentioned in Can Nat

Ent. vol 2 p. 273 where the caterpillar fed at its last meal on ladies of Mantis carolina (C)

*Hyphaulus* <sup>(?)</sup> *textor* Fall web worm, D. LeBaron  
 near Du. H. 1st (in Rep. 1871) 13 =

*Hyphaulus textor*. L. pale yellow with a broad blackish stripe along the back & another beneath  
 clothed with whitish hairs growing from smooth orange & black dots. head & feet black. 1. 00  
 3rs. with white intermed any spots on wings fore thighs tawny yellow in front. anterior feet  
 allanala with black & white on fore side. 125. 135.



verat

*Spilosoma ustalis* Pack. N.E.S.P. 3, 126

Hab. St. Francisco Calif. Pack

*Spilosoma congrua* (Holt.) G.R. 9. Pack N.E.S.P. 3, 125

Specimen sent by Mrs. Long for Tallahassee Fla.

See pl. 20  
fig. 24. Fla.

Hab. Geo. (Pack) Fla (H.)

suitable or agreeable

regr. pie  
a weaver  
tutor a weaver

*Bothum*. Rep. Texas groups. 2488. Riley 3<sup>d</sup> Dep. p. 120 Can. Tamm. 1867. p. 269.  
*Myphantaia* (Harris) *texlor* (Harr.) G.R. 9. Clem. PA. N.S. Phil. 530. 1860 { *Fitch* & N.S. Soc.  
*Spilosoma carbidata* Walk. G.R. 3<sup>d</sup> Dep. 2. 86 { 1836 vol. 16. p. 382  
*Spilosoma texlor* Clem. (off. to Mon. Syn. 344 { Har. 1868.  
*Euphrasia texlor*. Pack (Pack)  
*Cretia* " Mon. cat. 24 Har. New Eng. Tamm. vol. 7. p. 33.

*Lar. weaver* (Mon.) Tall web woven (Harris) & Fitch

Eggs deposited in a cluster upon a leaf or the extremity of a branch

lar. white, fringed thin  
lar. yellow, feet blackish  
lar. mostly immolated

*Lar.* form large thin colored like nests on the end of a large limb  
 I live together in societies but disperse when about to change into  
 pupae *Lar. July* (Md.) 9 Oct. SC.

*Lar. pl. 8*  
fig. 6 Cotton SC.

*Pupae* formed in almost transparent cocoons of silk intermingled with  
 hairs not removed as pupae all winter (Harr.)  
 sometimes forming their cocoons a short distance under the surface of the earth,  
 June & July Mass. very common (Md.) I said to be abundant (Am. Ent. 1897)  
 in Can. (Saunders) sometimes 2 broods yearly in the south

*Lar. pl. 8*  
fig. 8 Plum NY.*Lar. pl. 8*  
fig. 10 Persimmon*Lar. pl. 8*  
fig. 11 18 19

→ parasites. *Umma* (off.) *modesta*  
 Walsh Am. Ent. 1. 57  
 Button wood Birch Oak. Ash (Bothum) (Canada) Elm hickory Lilac Plum Persimmon Hazl.  
 Remedies cut off  
 infested branches (Harr.)  
 from

Good plants. Apple butternut. leaves Cotton Cherry  
Walsh Am. Ent. 1. 57  
Can. Bothum (Am. Ent. 1. 57)  
Can. (Saunders)  
Willow & Wild Cherry (Saunders Can.)  
Can. (Saunders)

Note: single larvae have been found feeding on Sunflower Plantain &c. when their webs have been destroyed  
 & the caterpillars dispersed from the trees on which they were feeding

Bear Case Orange. Black Walnut  
Riley 3<sup>d</sup> Dep. p. 131.Remedy prune off branch with nest & destroy caterpillars  
at any time but the earlier the better

*Euclyptus Har. Eglemeus Morr.*  
*In fm Texas by Dr. Silliman*

85/30 Texas

*Euclyptus 87/4*

♀ 10 segs black, bodies black with whitish on each side thickly covered with short tufts of hair projecting from little tufts, also along the top of each seg. row of short black tufts on each side from 5 to 10 segs an alternate tuft of orange & yellow hair curling upwards so as nearly to conceal the black tufts between them; below these along sides of body a row of horizontal black tufts on 2 & 1 segs four black pencil like tufts extending over hind on each side of 34 segs a similar black pencil on 2 with on sides of 2 & 10 segs.

♂ short almost egg shaped - formed in cones composed chiefly of hair

1. 75. 4 smaller body gray, also less wide median colored top of abdomen bright yellow with a row of black dots - 2 rows on sides.

points or dots

*Hyphantria punctata* Fitch GPK 9. Fitch Jr. <sup>1856</sup> 1856 p 387. Pack P&S.P. 3126  
*Spilosoma* Clem app. t. Mor Syn 1860 p 344  
*Spotted Ermine moth.* (Fitch)

Sp. 54  
 fig 14 Md.

Habits the same as H. texor. spinning webs  
 in the trees feeding on the foliage

2. similar to texor.

Small white with a conspicuous black stripe on the fore  
 side of anterior feet & shanks, black thighs & legs long  
 yellow in front. Fore wings with a black central dot  
 & in middle a row of small blackish spots from middle  
 of inner margin to tip

Food plant Cherry, Quince, Mulberry, persimmon?  
 Willow

Hab N.Y. Mass. Md.

Cuneus a ridge

*Hyphantria cuneus* Fitch GPK 9. Pack P&S.P. 3. 126. Fitch Jr. <sup>1856</sup> 1856 p 384.  
*Bombus cuneus* H. n. y. Clem P&S.P. 3126. app. Mor Syn. 343  
*Spilosoma cuneus* n. y. in Harris 353  
*Phalaena punctatissima* S. & A. S. & A. p. 70. Anctia. Har 358

Small Ermine Moth S. & A. Many spotted Ermine Har  
 Spotted Ermine moth. Fitch

21 fm S. & A. fig.  
 Jar. fig. 68  
 fig 14 Call of Mr. Marsh etc  
 as cuneus.

Habits &c the same as H. texor spinning  
 webs in trees &c &c

Hab Mass N.Y. S. & A. (Md.)

Food plants. Cherry, Mulberry, persimmon, Willow  
*Cuneus* (Saunders) will feed on *Chenopodium album*. Same as *quercus* or *Populus*  
*punctata* are probably only varieties of the same moth. } Saunders  
 in Pack quercus 287

Small white anterior feet black on the fore side alternate  
 with black ventral. in their hind side. anterior shanks  
 black in front. thighs & legs orange yellow.  
 Moths have numerous small black dots on the ant. appen-  
 in females

to

*Euchaetes* (Har.) egl. Har GPK 9. Pack P&S.P. 3. 130 Har 361

Larva a more or less  
 fine raised or hairy a  
 row of hairs in a row of  
 the long left of hairs over  
 having the front part of the  
 caterpillar like a more Har

*Bombus* " " Har  
*Spilosoma* " " Westwood. Walker. Mor Syn 343.  
*Hyphantria collaris* Fitch merely a var.

Jar. fig. 92  
 fig 92 Mo Aug 10.

Larvae feed together side by side beneath the leaf  
 Pupae formed in cocoons consisting of silk loosely spun  
 with the hairs of the larva in Sept.

Jar. fig. 58  
 fig 14 Md

Ins. appears the following June or July.

parasit. prob. *Lygus* *aulicus* in Heterop.

Food plant Milk or Silk weed

Hab Mass. Maine Can. Mich. Pack.

note "once taken near London Can. rare Saunders.

var a *Hyphantria collaris* Fitch GPK 9. (Spilosoma) Fitch Jr. <sup>1856</sup> 1856 p 383.  
*Tanaba aulicus* Walk. G. J. Am. Ins. Soc. 2. 75. Mor Syn. 344 } (Hyphantria)

Yellow Necked Ermine Moth (Fitch)

Insect merely a white var of *Euchaetes* egl.

Ins. fig. 54  
 fig 16 Md.

note "from the same brood of Larvae Mr. Shuckoff has raised both the  
 typical forms (of *Euchaetes* egl.) & a white variety which agrees well  
 with Dr. Fitch's description of *Hyphantria collaris*. I have since received  
 this albino from Mr. Saunders of London C.W. labelled "H. collaris"  
 Pack P&S.P. 3. 130

Hab Miss (Fitch) Can (Saunders, Md. (Fitch)

Small white & glossy. head much bare. Anterior appen-  
 sages white & anterior legs pale. other yellow  
 feet pale brown.

*Epantheria*. Scribner's Stall. July 4<sup>th</sup> 1871.

When disturbed casts dirty egg. Larva the reddish brown <sup>below the</sup> rings of the segment, feeds mostly at night.

on Milk Suckflower. (Habenaria, drooping) plantain  
willow, I prob black hound (Lentus) attacks it.

Full size in the autumn hibernates under bark &  
revives in spring. Feeds for a few days on

almost any green thing. (Plantain I fed grass with it)  
often casts its skin. I assume the chrysalis  
form & in about 14 days the perfect beetle  
makes its appearance. They sometimes however

go through all their transformations & produce  
the moth in the autumn. Known in the

southern swamps as the fever worm, the negroes  
very much the impression that it is the cause of  
fever & ague.



*Euchaetes egleensis* (Clem) GFR. G. Clem P. A. N. S. Phil 232. 1860. Pack P. C. S. P. 2. 130

painted

*Arachnis* (Hüb.) *fulva* (Pack) G. FR. G. Pack P. C. S. P. 2. 126.

Hab San Francisco Calif

Ex out of.  
par 8 pp. 2 p. 5. a panther.

scribonius  
a roman family  
name.

*Espantheria* (Hüb.) *scribonia* (Hüb) GFR. G. Clem P. A. N. S. Phil 1860. p. 523. Mor. Sen 347  
*Phalarna scribonia* (Stål.) Har. 349.

*Phalarna oculatissima* Stål. pl. 67.

*Bombyx cuneigunda*. Reaumur

Great Leopard Ermine (Stål.) Great white Leopard. Har.

Larva "when young one half orange the other half black" (Stål.) These caterpillars are rather common (Md) in autumn & spring as they appear to hibernate, being found all winter amongst grass & rank herbage, on warm sunny days they creep about but do not seem to feed much & are exceedingly difficult to raise as when confined they are apt to die. The moth therefore is much more rare than the caterpillar in Md. Saunders of London states that the larvae attain their full size in autumn & hibernate through the winter under logs & the bark of decayed trees & when roused from their torpor they feed a little on Grass" (Saunders P. C. S. P. 2. 128)

Pupa formed in a cocoon of thin gummy web. 4/11/60 Moth the 2d brood June 15. (Geo)

Ind appeared 1st 18th & 7th July (Geo)  
& not common near London (Geo) Saunders

Lar. pl 8  
pg 12. Md. Oct to Spring  
plantain & clover

Ind. pl 54  
pg 6 Md

Food plants. Cherry wild? Pansy common? Wild Sunflower.  
Plantain Clover (Stål.)  
Grass (Saunders.)



\* \* \*

Singular to relate different as are the Larvae & food plants of *L. solanis* & *L. Harriessii* (Walt.) the moths are absolutely "undistinguishable" (Walt.)

XXXX

{ the larvae of *L. Harriessii* (Walt.) feed exclusively upon the Lycamore & decs if transported to other trees. Ann Ent. & Bot. 2, 334

(Ann Ent. 1. 205)

*Lophocampa caryae*

L. covered with short spreading tufts of white hairs with a row of 8 black tufts on back & 2 long slender pencil on 4th & 10th ring hairs on fore body longer. head feet & belly black sides white dotted black. w. 1.00

Ins. light vandy yellow fore wing long rather narrow almost pointed sprinkled with little brown dots 2 oblique brownish streaks passing backwards from front edge 3 rows of white semi-transparent spots parallel to outer margin hind wing semitransparent without spots. 1.5 7/8 to 2.25

above 2 w. los  
chanes.

tridated or  
checkered

\* *Halesidota* (Hüb.) tessellaris (Hüb.) GFR 9.

*Phalana tessellaris* Smith & Abbott pl 75.

米米 *Halesidota annulipola* Walk. Proc. Boston Soc Nat-His 9. 288. Feb. 1864 WESP. 3. 413.  
米米米 " *harrissii* Walk. Can Ent 1. 205.

*Halesidota tessellaris* Pack P&S P. 3. 128. Walk. Clem P&S P. 1865 34. Mon Syn 348.  
*Lophocampa* " *harrissii* Can Ent 1. 205. (Walk P&S P. 3 p 413 & 5 p 197.)

Checkered Tussock Moth (Har) Cream-barred or Beech Tussock (S&A)

Muff Moth. Can Ent 393.

Larva "has black colored pencils or tufts on a great variety of trees. <sup>on segment 2.</sup> <sup>found June to Aug & Sep. (Ind.)</sup> <sup>Can. P&S P. 3 p 198</sup>

Eggs "sometimes found under the bark of large Plane trees (S&A Gen)

Ins. Apr. 24<sup>th</sup> & July 25. (Can) common (Ind.)

Lar pl 10  
Pg 2. Oak & Maple Aug Md.

Ins pl 56  
29 Ma.

light yellow or orange colored tufts on 2 & 3 ring 2 orange  
colored pencils, stretched over head at rest. before these  
several tufts long of which hairs, 3 & ring on each side a  
white pencil. 2 white pencils on 11 & 12 ring stretched backward  
every yellow white with hairy warts  
the thin oval hairy cocoons in clusters or under stones (Ind.)  
very narrow delicate semitransparent wings lying almost  
flat on top of back faintly lined with yellow. upper  
half chequered with dusky spots arranged so as to form  
a conical band with white bands. (Ind.) edge of collar  
& inner edges of shoulder covers. (Ind.) blue between  
shoulder covers 2 short narrow dark yellow stripes 2.00

Food plants Apple (Can Ent), Ash, Beech, Buttonwood  
Hornbeam, Maple, Oak, plane, poplar, Willow

Hab. Mass Maine (Pack) Can rare (Saunders)

Va. Md. common (S&A)

\* note *Halesidota* not *Halesidota* - see *Worm-referend*. See *bracketed* *Tymnoliter*  
GFR 3. 536

\* \* *Halesidota annulipola* of walk. P&S P. 3. 413. & 5. p 197. has orange pencils.

*Lophocampa*

on segment 2.

米米米 *Lophocampa harrissii* Larva. has orange colored pencils or tufts instead of black as  
in *H. tessellaris* feeds on Sycamore or Buttonwood exclusively  
Can Ent. 1. 205. WESP. 3. 198

of the Hickory

*Halesidota caryae* Clem. GFR 9.

*Lophocampa* " Har Feb 1<sup>st</sup> Sep. 189. Mar 26. Har. 362. Fitch In MS Sep. 1856 vol 16. p. 409.

*Halesidota* " Clem P&S Phil 533. 1864. Mon Syn 349. Pack. P&S P. 3. 128

" *annulipola* Walk. Clem P&S Phil 533. 1864. " 349. Walk GFR 7. 125. 2. 72.

*Phagophora porphyria* H&S.

Crested Hickory moth Har or Hickory Tussock moth. Ins pl 56  
Lar feed Aug & Sep. (Ind.) Cocoons ash gray or at with warts only. Ins June, Fig 30 Ind.

Food plants Ash, Butternut, Elm, Hickory, Locust, Oak, Sumach  
Tamarack or American Larch. Walnut

Hab. Mass Maine (Pack) N.Y. (Fitch) Can. (Saunders) Va Md. (S&A) common.

*Halesidota* ?

Hab N.Y.

Food plant Pear

*Halesidota caryae* affinis.

Ins pl 103

2.

Specs taken border Arizona Times by S. S. 1889.

(189



speckled or variegata

*Halisdota maculata* Clemens GHR 9 p*Lophocampa* " Harris 363.

Hab. fulvoflava Walk. Clem P&amp;S Ph. 534. 1860 Mon Syn app. 349. Walk GHR Tr AES 2 p. 72

*Phagophora guttifera* Hsch.*Halisdota maculata* Clem P&S Ph. 534. 1860 Mon Syn app. 349. Proct. guide 257

Spotted Tussock Moth (Harris)

Ins. pl 87

1922 Coll of  
Mr Saunders  
Can.\* *L.* differs from *Caryae* by having white overhanging tufts. F. Har*L. Sch.* Canada (Saunders)Ins. 4<sup>th</sup> June following

Toad plant Calif Saunders

Hab Can (Saunders) Mass Maine (Pack) NY.

\* Note Mr Saunders of Canada says My fig pl 10 fig 5. which somewhat corresponds with this description does not agree with the larvae which he fed on Oak. & which when changed into the imago proves to be the true *H. maculata*. "Larva taken on Oak Sep 11 1866. length 8 3/4 inches cylindrical head large slightly bilobed, black with a faint whitish streak down the front as far as the middle where it becomes forked in branch going towards each of the palpi which are white at the base & tipped with black. upper lips white, mandibles black. Body, above black, thickly covered with tufts of light yellow & black hairs, on the 2<sup>d</sup> 3<sup>d</sup> 4<sup>th</sup> to the segment the hairs are mixed yellow & black. those of the 2<sup>d</sup> & 3<sup>d</sup> overhanging the head. from the 4<sup>th</sup> to the 11<sup>th</sup> segment inclusive is a dorsal row of black tufts. the largest of which are on the 4<sup>th</sup> 10<sup>th</sup> & 11<sup>th</sup> segments the 4<sup>th</sup> & 11<sup>th</sup> segments have also black tufts on each side near the base of the hairs on the sides of body. from the 5<sup>th</sup> to the 10<sup>th</sup> segment inclusive all bright yellow hairs, on the sides of the 12<sup>th</sup> & 13<sup>th</sup> segments are mixed black & yellow hairs, on the 3<sup>d</sup> 4<sup>th</sup> & 11<sup>th</sup> segments are a few spreading yellow hairs, the under surface is a little paler in color especially between the prolegs, the feet are black & shining with faint lines of a paler hue, the prolegs are pale yellow slightly tipped with reddish brown." (Extract from letter of Mr Saunders London Can)

*Halisdota concipies* Grote. GHR 9En *Halisdota tessellata* [error] Walker (descrip.) GHR 2 Tr AES p 72

Note "not yet taken within our Territory Specimens examined came from Mexico (Vera Cruz) & Cuba. it will probably occur in Texas. GHR 618

californica

*Halisdota californica* Walk (GHR 9)

Hae. angulifera Walk.

Californian *Halisdota*

agassizii

*Halisdota agassizii* Pack 3 GHR 8*Halisdota agassizii* Pack P&S R. 3. 128Agassiz *Halisdota*

Hab San Francisco Calif (Pack)







*Halosidota Edwardsii* (Pack) GPK 9.  
*Halosidota translucida* Walk GPK Fr A E S. 2 85  
*Halosidota Edwardsii* Pack PESP 3. 129.  
 Edwards *Halosidota*

In pl. 105  
 fig 5. Bad Soc Nat Hist

Has San Francisco Calif (Pack)

{ Specimen in Cat of Boston Soc Nat Hist but very  
 much rubbed & mutilated.

silvery

*Halosidota argentata* (Pack) GPK 9.  
*Halosidota argentata* Pack PESP 3. 109

Has Gulf of Cal. & Calif. (Pack)

rosy

? *Halosidota rosata* (Walk) GPK 9.

*Halosidota antiphola* Muls PESP 3. p. 410.

desc. of Lampa wh has "orange colored pencils or legs" Walk.

Good Oak 'Basswood' & other trees.

" European " *Oryzias* the males are constantly on the wing flitting about in the hottest weather in the autumn thence probably termed "Vapourers" ~~with~~. West. 2387

*Oryzias* *Pseudostigma* Dr. S. Baron. Nox. 50. Hl. 1<sup>st</sup> Ann. R. 4.  
 description by 2 males (Dr. Fitch) 177. 16.  
 " " 7 " (H. 177.)  
 " " Probably *Sathura* Libanon  
 taken by American cuckoo

♀ slender with fair blue hair tufts with black points  
 head ♀ 2 small protuberances on hind part of back red brown  
 2.10.11  
 1.11.11  
 1.12.11  
 1.40  
 ♀ hairy with 6 long branches or spines.  
 1 small tuft on each side of back.  
 head with a single black spot under edge near eye  
 1 oblique black streak posterior of 11 (variable) from withouth  
 wings 4 each gray

*Lasychirinae*

Λευκος white \* *Argyria* (Achsenheim) *Leucostigma* (H. & A.)  
 στίγμα mark. *Phalaena leucostigma* S.H.A. pl 79

*Peethum* 1st Rep Small grows  
As<sup>n</sup> Ontario. 83  
*Leucostigma* (H. ar,  
gima S. G. pl 79

Mar p. 23. Back p. 331. Har. 367.  
GHR. g. Fitch 3<sup>d</sup> Rep. 338, 364. (1856) Mar Syn 249  
Bulley 1<sup>st</sup> Rep. Mo p. 144 Fitch NYS Ag Rep. 1855 vol 15 p. 441

\* Pale vaporar. (SFL) White marked Tussock moth or Pale Vaporar (Har)

Egg each with a deep hollow on the 10th giving the appearance of a lumpy white head. Below  
Eggs deposited in a cluster on the top of the cocoons of female ♀  
covered with a puffy matter which hardens when dry & becomes  
like a brittle gum. The cocoon frequently has a small leg or  
tapered appendage to it. I saw nearly 100 plants in the winter when  
the foliage has fallen, the eggs remain on the tree all winter.  
Wharton the following spring. In 1922, one 66

Larva solitary feeds on the foliage. Common Can. mid July (Saunders) 5.6. m  
The male alone had wings the female being almost apterous  
or wingless. male fly in the hot sunshine in Sep. (Packard) June 288.  
If neotropical by the female the same as *Velia polyphemus* G.

(Sugarberry, Amelanchier) Food plants. Apple, Cherry, Elm, Horsechestnut  
blackberry. 253

*Parasite* *Trochogramma oxygrye* & *Isotoma* }  
 " *Stalioa* & *Pimpla*. *Am. Ent. 1.79.* { *Fitch 216*  
*Lab* *Maurer* *Mass. (Pack)* }  
*Hayes* *Col.* }

Note. Greggia in Lunis from ovary to expand prior a limb from the outstretched fore legs of the male moth when at rest & with wings, closed.  
Vaporar probably because the males are seen flying about ostentatiously or vaporing in day. Has

new. *Orygia nova* Fitch. F.R. 9. Fitch. In N. S. Ill. Soc. 1862. vol 22 p 675  
or *Orygia antiqua* + error Walk. & Mor<sup>SW</sup> 249. Har. 368. Walk. G.R. to U.S. 2. 73.

*Orgyia nora* Fitch Pack PESP 3. 331. Fitch 8th Rept- 1864. 675.

Modern Vaporer moth (Nich.)  
Eggs kept naked in a cluster belly side on outside of cocoons stuck covered with a frothy mass as in Enclosure near  
It also supposed to be much the same as the above.  
I saw only large niches in June. Color whitish with a black  
head & back & 5 pencils of fine black hair, orange spots on its sides &  
along its back. I saw colored tufts & 2 small bright red protuberances "Hole"  
- 18 -

Hat Can Bottom Can etc 400 Hat Maine Mass. (Pack) 174 Sitch Good plants Ash Thorn Cherry Willow (prob)  
parante { *Telenomus* *Oryzae* (*Proclitus*fidae. ) Sitch Iny Sag Soc vol 22 1862 } Rose plant Apple Sother trees Sitch  
<sub>in egg</sub>  
p. 680

*Ergyia antegia* <sup>(Linn)</sup> of Europe Vapor. Math. Newman. 40.  
" " Error. Har. 368. - Mar. Syn. 249. Mar 23. GPB, pc 12  
pg 19 Leeds England.

by the back wh. has a short square mark like yellow  
long black lines on joining, one on each side 5th  
top of 11th head black, writ on top of 9th & 10th  
a rust brown from well, crossed by 2 dusky broken  
shells, with a white recent neck band angle  
gray & orange 1, 12.

class definite. *Corypha definita* Pack. G. N. 9. Pack 16 & 17. 332

Neab Boston Southorn (Pack)

*Orgyia nictata* Boisid. GFR g. Pack PESP. 3. 332. Walk. Morris Syn 250.

Hab. Calif.

*Hypogymna dispar*.  
accidentally

Larva introduced into New England only a year ago by a Mass<sup>ts</sup> entomologist & is rapidly spreading over some of the eastern States & is a great pest in Europe both to fruit & forest trees. Reley Rep<sup>t</sup> 2.





relates to)  
Tropa near *orgyia*  
*achatina*.  
*achates*. *agate*

*Parorgyia* (Pack) *achatina* SGA GHR 9. Pack PESP 332. GHR 6. p. 3.

*Phalaena* " " SGA. pl 77.

*Dasychira* " Mor 23 Mor Syn. 257.

Dark banded Tussock moth SGA.

SPD. pl 101

fig 12. 13. 14. 15. from SGA.

Lar spun cocoon 3d May. Ins appeared 20th May Geo.

(Larva of SGA resembles my fig of Lar. *P. parallela*.) Food plant Hickory

Hab Geo (SGA.)

yellowish base

*Parorgyia* *basiflava* Pack GHR 9. Pack PESP. 3. 333.

*Orgyia* — " — Harris Coll. in Bos Soc Nat Hist.

Ins fig 105

fig 2. Bos Soc Nat Hist.  
from Harris Spec

Hab "nonantum" Pack. of Har.

claudetina

*Parorgyia* *claudetina* Walk GHR 9.

*Dasychira* " Walk

Hab Can. (Can Ent 1. 88.)

cinnamon color

*Parorgyia* *cinnamomea* GHR GHR 9. GHR PESP. 6. p. 6. pl 1 fig 6.

cinnamon colored Tussock moth

Insect from coll of Miss Grote Robinson N.Y.

Ins fig 72

fig 8. coll of GHR

Hab Rhode Island. (GHR)

Clinton

*Parorgyia* *clintonii* GHR. GHR PESP. 6 p. 3. pl 1 fig 24-3.

Er. " *leucophaca* ± Hab

Er. " *achatina* ± Pack. PESP. 3 p 333

Ins fig 72

fig 10. from GHR fig

Clinton Tussock moth

87/6. can

Hab Rhode Island. GHR.

*Parorgyia* *leucophaca* (Pack) GHR 9. Pack PESP. 3 p 332. GHR PESP 6. 3

*Phalaena* — " — SGA. pl 78.

*Dasychira* " Mor 23 Mor Syn O.

Orange & White Tussock moth SGA.

Lar fig 11 SGA fig 13. 19. from SGA fig

Reformed in a cocoon consisting of a thin pale brown.

Ins pl 72

fig 11. from coll of Miss GHR

web. up 27. (Geo)

Ins May 9 (Geo) Food plant Cat.

Hab Geo (SGA.)





oblique or slanting

*Parorgyia obliquata* GVR. GVR 9. GVR. P&SP 6 p. 4 pl 1 fig 4

Hab Rhode Island (GVR)

Ins pl 72  
fig 6 Coll of GVR.

parallel

*Parorgyia parallela* GVR 9 GVR P&SP 6 p. 5. pl 1. fig 6.Larva found on Oak Md in July  
Y? Rose " Adg.Lar pl 9  
fig 12. Oak Md. fig 20 Rose  
ma. }  
augIns plates 58 pl 63  
fig (var) fig 192 fig 7 ma. pl 72  
fig 9. coll of GVR

Hab Md (GVR)

Food Plants Rose Oak.

cylindrical or  
flattened*Parorgyia plagiata* GVR 9  
Edmond? plagiata Walk.

Coc.

*Larva* (Wurtz) Rossii Curtis. GVR 9  
Lasycheva " GVR. P&SP 6 p. 6.

Hab Arctic America

*Parorgyia* ?56 Saunders number ♂  
76 " " ♀ins L. Coc. Ins. pl 88  
fig 87. 8 ♀Found Larva & insects sent by Mr  
Saunders to Sanata. & closely resemble  
*Parorgyia*.

I. C. XV. 12. Lintner, Coll.  
*Lagoa crispata* Pack Lintner 23 Jan. Rep. 24 Feb.  
nat. H. 52.











? larva

X hump's green

*Parasa (Moore) chloris* GHR. 10. GHR Tr Am Ent Soc 2. 73.*Naerea chloris* H Schf. (*Naerea prooccupata* by argem of *Diptera* Reakirt PESP. 3. 441) } I. m. alba (GHR) } GHR Traps. 2. 75*Limacodes viridis* Pack PESP 3. 322.*Calochlora armata* Pack PESP 3. 339.*Limacodes viridis* Reak PESP 3. 267. Am Ent 2/307. Lar. Jn 11*Parasa viride* (olim *viridis*) Reak. PESP. 3. 441.

fig 3. Walnut Md Sep. 79.

Larva found in Sep.

Ins pt 51

Ins pt 70

Cocoon spun on midrib of a leaf.

fig 19 Md.

fig 22 Md.

Ins appeared the following May (Reak PESP 3. 339.)

Hab. Pa (Reak) Mass. ? " Md (G.)

Food plant Chesnut (Reakirt)

Note

Mr Riley Am Ent. Soc. states that the larva feeds on Cherry's Apple. *Worms* (G.)  
of a bright scarlet color with blue black lines. The fact that Reakirt's larva is a mistake  
with prickly thorns or tubercles which have the power of stinging. See Am Ent. Soc. Trans. 1888. pt 11 p. 198.

? larva

*Monoleuca (GHR) semifascia* GHR. GHR 10. GHR Tr & ES. 2 p. 188. pt 2 fig 68. 3

half stripe or band

*Limacodes* " " " " " " " " " " " "

In. "

Ins pt 85

fig 18 J. Linneum Texas.

Hab. West Va. Texas. (GHR)

Larva 197  
fig 197? larva  
two dus slow  
gradus olep*Noctelia (Clem) tardigrada* Clem GHR 10. Clem P Acad Nat Sc Phil 1864 p. 160  
Mor Sgn. p. 131. Pack PESP 3. 40.

Food plant Apricot (Clem)





Spec Ent 1. 34 Pack guide 289  
" - " 2. 9

*Empetria*  
an incochary

*Empetria* (Glen) *stimulea* GHR 10. *Stem Pr. Dec. N. Sc. 1860. P. 159* Pack PESP. 340  
*Limacodes* *ephippatus* Harr. Conn. *Nov. 131* Ann Ent 2 p. 32 458  
Lar. Saddle back of Pa from the saddle like mark on the back. Ann Ent 1/20.

Stimulated provided  
with a sting from  
the stinging hairs or  
bristles of the larva.

Walsh Ann Ent 2/22 states  
"Empetria is detested from  
a black won't signify to burn"

Lar when handled stings severely with the spiny hairs  
in its body.

Pupa formed in cocoons covered with grains of sand  
on or near the surface of the ground in Sept & Oct Ins. pl. 58  
Pg 13 Md.

Ins. appeared the following spring (June Md)

Lar pl. 10  
Pg 18-19 Cape Myrtle  
Fla

Ins. pl. 64 Md June

Food plants. Apple Dahlia Cape Myrtle Maize  
hickory rose Walnut (Morello cherry) (Glen)

Hab. N.Y. Md Fla (G) Raspberry Smith Grape. (Walsh) Spec Ent 1/20 69 plum. (Pack) PESP 3.300  
N Haven. Smith.

Goatpiper  
a scarab on  
bag bear.

*Phobetrion* (Hüb) *pithecium* Pack. GHR 10.

*Phalarina* " " SGL. pl 74

*Phobetrion*. *abbatana* Hüb

*pithecium*  
a small ape or  
an old flavored cr.  
woman, prob on  
account of the shrivelled  
appearance of the larvae.

*Phobetrion*. *hyridopteryx* *sphaerocarpa* formis - error Pack

*Phobetrion* Hüb *pithecium* Pack PESP 3.340.

*Limacodes* *pithecium* { Mor. 15. Mor Syn. 127. Har 422. (Glen Ent 2 p. 26) Lar pl. 14  
{ Feb 3rd MS Ag Soc. 1866. vol 16. p 381 } { 2 p. 26 } Pg 4 Oak Fla Oct

Bat caterpillar moth. (SGL) Hag moth. Har & Feb Ins Q pl. 37  
Pg 1 Ma. July.

Lar found on Oak Oct (Fla) 10<sup>th</sup> July (See SGL) Ins Q pl. 66  
Pg 8. SGL (bad) pg

Pupa formed in a small nearly round cocoon like pasteboard  
near on or the surface of the earth. Ins Q pl. 64  
Pg 31 Ma. July.

Ins. (Md) appeared the following Spring Spec? & figured (Md) July

Food plants Apple Cherry mild & Cult? Oak  
Persimmon Plum (PESP 3 p. 300)

Hab. Geo (SGL) Md. Fla (SGL) N Hamp. Mass. (Pack)

Apple & Pys?  
grassy  
hyaline or glassy

*Limacodes* *hyalinum* (Walsh) GHR 10. (Spec. distinct?) Walsh P. Book Soc  
Nat Hist 1364. 4 p. 247.

Hab Illin. Walsh.

Hickish

*Limacodes* *nigricans* Grote. GHR 10. Pack PESP 3.350  
*Thyridopteryx* " " Pack.

Ins. Feb. having been kept in a warm room by Mr. Sauterne Mass

Hab. Miss States.

Same size as *Thyridopteryx* *sphaerocarpa* formis. nearly black, head beneath  
& the middle femoral tufts & underside of the tip of abd. are yellowish white  
base of primaries mottled with fuscous, fringe fuscous brown. (Pack)



Limacodes Lut

106/13.

Limacodes unanimes

p. 13.

his twice  
gallus marked  
with spots or dots.

*Limacodes* (Lator) *liguttata* Pack. GHR. 10. Pack P&S.P. 3. 341.

Lar found on Oak Md Sep.

? Lar pl 4  
fig 1 Oak Aug Iowa?

Food plant Oak. Lar pl 11  
fig 11 Oak Sep Md

Hab. Pa. Nonantum. NY (Pack) Md Iowa? (JG)

Ins pl 61  
fig 11 Md.

Note "*Limacodes*? *ferruginea* & L? *tetradastyrus* Walsh are doubtful species" (GHR)

not ornamental *Limacodes* *innocata*. GHR. GHR. 10. Pack 0

Ins pl 60 pl 71  
fig 1 Md. 1/4 coll of Mass GHR.

Hab Ma. Va (JG)

Scapha  
a leaf.

*Limacodes* *Scapha* Har GHR. 10. Pack P&S.P. 3. 341. Har.

{ Marsh. Br. Acad. Soc. Nat. Hist.  
1864. 9. 298

" *undifera* Walk. (B.M. GHR. It. but Soc. Phil. 2. 74

*Closteroides* *cinnamomea* Pack.

Lar found on Wild cherry & Oak Sep (Md.)  
found also by Mr. Shurtleff under a maple tree (Pack)

Lar pl 11  
fig 6. Wild Cherry Md Sep.

Pupa formed in a round hard cocoon covered with  
grains of sand on the surface of the ground (Md.)

Lar pl 11  
fig 7 Oak Md Sep.

Ins. appeared the following spring

Ins pl 64  
fig 23. Md.

Lar. very thick, outline diamond shape.  
back a little hollowed, with an obtuse  
angled ridge on middle of each side.  
color green with elevated ridges brown 0.62

Food plants Wild Cherry (Coke. (JG)  
Maple. (Pack)

Hab Va. Md. (JG)

note "Mr. Sanborn of Mass. writes in a private letter that this insect is identical  
with *Closteroides* *cinnamomea* of Pack."

Y inverted or  
lunus upside down

*Limacodes* *Y inversa* Pack. GHR. 10. Pack P&S.P. 3. 341

Ins pl 50  
fig 3 Md. July

Ins pl 61  
fig 10. Md.

Hab Md. Pa. (Pack) Mass (Sanborn)  
Md (JG)

Ins pl 74  
fig 20. Mass. Coll of Mr. Sanborn

*Limacodes*

2 *Lithacodes* (Pack) *fasciola* (H. Sep.) GHR. 10. Pack P&S.P. 3. 346.

*Limacodes* *laticlavata* Glen Br Acad. Nat. Sc. Phil. 4. 137. 186. Mon. Syn. 127. 8.

Larva taken on Oak Sep. Md.  
J. in NY June 17. Linton 1849

Lar pl 11  
fig 4 Md Oak Sep

Ins pl 57  
fig 21. Md

Hab Mass. N.Y. Ill. (Pack) Md (JG.)

Food plants Oak Maple?

*fasciola* a small  
lunus band.

*Pseudolimnopsis nivicostalis* G. 94/21 Mar Juan Carlos







? deriv

*Adoneta Clem. spinuloides* Grote GPK. 10.*Limnecodes* " " H Sch.? spinis a black thorn  
or sea*Adoneta voluta* Clemens. *Pallens* not Sc. Phil. p. 158. 1860. Pack PEST. 3. 340*Cyclopteryx* || name previously employed. Pack PEST. 3. 346.*Limnecodes* Mon. syn. 127.? *Apneuste*

Hab. Brookline Mass. (Pack.)

larvas white,  
a half moon like mark,  
or stigma*Adoneta lucosigma* Grote GPK 10*Cyclopteryx* || name previously employed Pack. PEST. 3. 346.

if not the preceding sp. P. GPK.

Hab. N.Y. (Grote, Pack)

small or dwarfish

*Adoneta pygmaea* GPK. GPK 10 GPK Tr. Am Ent. Soc. 2. 159.

Nat. Texas.

? deriv

*Heterogenea* (Knock) *shurtleffi* Pack GPK. 10. Pack PEST. 3. 346*Shurtleffi* *Heterogenea*.Insect found on *Gleditsia triacanthus* by Mr. Shurtleff  
of Brookline Mass. July 16.Ins. pl. 93  
fig. 4 call of  
Sanborn.

Hab. Mass.

minute or small

*Vronaea* (Reakirt) *minuta* (Pack) GPK 10 Pack PEST. 3. 441*Limnecodes* " " Reak. PEST. 3. 251.

Ins. found on Cal. &amp; Chesnut (Pa) Aug 1869.

Loc. spun (i.e. on one of the small veins of leaf).

Ins. appears fine.

Hab. Pa. (Reak.)

Food plants Cal. Chesnut (Reakirt)

? deriv

*Isa* (Pack) *textula* (Pack) GPK 10 Pack PEST. 3. 347*Limnecodes* " " H Sch. Mon. Syn. 128.

? textis a weaving or web

Ins. figured taken in June (Mass)

Ins. pl. 94  
fig. 8. call of Mr. Sanborn

Hab. Mass. (Sanborn) Pa. (Pack)

fluous golden yellow.

*Fortivicidia* (Pack) *flouula* (Pack) GPK 10. Pack PEST. 3. 348.*Limnecodes* " " H Sch. Walk. Mon. Syn. 128.

Hab. Nova Scotia (Walker, Pack)



Longues to twist  
or distort  
testaceous covered  
with a shell.

*Tortricidia* (Pack) testacea Pack GGR. 10. Pack PESP. 3. 348.

Ins. July (Mass)

Ins pl 61  
fig 13 Md.

Hab Mass (Pack) Md (F)

of a pale color

*Tortricidia* pallida Pack PESP. 3. 348. GGR. 10.

Limacodes " H. Sch. Moll. Mor syn. 128.

Ins June 15<sup>th</sup> July 1. Mass.

Hab Mass?

*Limacodes* ?

Larva taken on oak. (Iowa) Sep.

Lar pl 10  
fig 21. Iowa. oak.

Hab Iowa

Food plant Oak.

*Limacodes* ?

Larvae all taken on Oak. (Md.) Sep

Hab Md

Food plant Oak.

Lar pl 11  
fig 1. 2. 8. 9. 10. oak Md

# fig 1. has peculiar glass like spines on the back which unfortunately were broken off.

*Limacodes* ?

Larva taken on Orange in Florida

Lar. pl 19  
fig 16. Fla. orange

Hab Fla.

*Limacodes* ?

Larva has a peculiarly transparent glass like  
appearance when living I was found on Oak. (Md) Sep.

Lar pl 20  
fig 20. Md. Oak

Hab Md

*Limacodes* ?

Hab Md.

Insect taken in Md. in July

Ins pl 50  
fig 2 Md

*Limacodes* ?

Hab Va.

All these larvae were taken from original sketches  
made by Mr Edwards of Coalburg. Va & kindly sent  
by him to F. G. to be etched for this work. as they may perhaps be hereafter  
they fed on Hickory cherry & Maple

Food plants Hickory Cherry Maple

pl 95  
fig 18. 19. 20. Va

identified

*Psyche helix.* Ann. Nat. M. 160.  
 and the larval period of a moth

Our common basket-worm, *Thyridopteryx cymmeriformis*, which feeds indiscriminately upon all deciduous trees, and in the neighborhood of Washington appears to be particularly partial to the red cedar, might be used for silk, provided the fragments of leaves and sticks interwoven with the outer surface of the cocoon could be readily separated from the fibre. The silk, however, would have to be carded, as it would be impossible to reel it.

164. 186  
 p. 87

Mr. Riley 1<sup>st</sup> Rep. Mo. p. 149 says that the female "never leaves her case but issues from her chrysalis in the shape of an abortive footless wingless affair & after copulating works herself back into the chrysalis skin fills its upper but posterior end with eggs & stops the other end with what little there is left of her body when she gets through" Riley  
 destroyed by *Cryptus inquisitor* & *Hemiteles thyridopteryx*  
 article on fecundation &c. Rathvon in Am Ent. 2. p. 81.

"Oicketus or Psyche." (Europe)  
 from some observations made by Behnsenheimer & Inghen (Steph. Illust. Haus. 2 p. 81.) it would appear that these females produce fertile eggs without fecundation West 2. p. 389



Psychrinæ

Psyche

*Psyche* (Ochs) confederata. GHR GHR 10. GHR Fr. A ES 2 191. Polg Ref 1858 p. 264  
*Plateteleus huerfii* Pack. guide 291 ♀ syn US Brm bycidus  
 Larva found in Florida on the Orange L.P. de ~~W~~ 12/18

Obs Fla. Texas (24,

Good plant Orange.

*Psyche helix* has been known to produce young from eggs not fertilised by the male. Back guide 290

? deriv

*Phryganidia* (Pack) *californica* (Pack)  $\frac{1}{2}$  G.H. 11. Pack PEST. 3. 350.  
Californian *Phryganidia*.

Has Bulj

Ins pl 70

fig 21. Coll of M Grote.

Ins. pl. 105-

Fig. 1 Mr Stretch. Calif.

*fm. Sp. in Mus. Bar. Soc. Nat. Hist.*

Am Ent 1.250, & fig 4 habits. Am Ent 2.36: (figs copied from Hg.)  
Haworth





*Lacosoma chirodota* { *labella* *Platypteryx* in Harris coll  
No. 275. in Bask Soc Nat Hist.

335

Insp pl 106  
fig 3. Har. cabinet

{ *Lacosoma* or *near*  
{ *ovum* form

*Lacosoma* (Grote) *chirodota* (Grote) GHR II Grote P&S.P. 3.78. pl 2 fig 8. Packs P&S.P. 3.351  
*Platypteryx erosa* Harris cat Insp Mass. 1835. p 78. (Pack)

Hab Mass. (Har), Pa. (Grote)

Insp pl 70  
fig 27 coll of Mr Grote.

*Lacosoma*.? *chirodota* as above

Hab Pa. (Holt)

Insp pl 74  
fig 6 coll of Mr Holt, Phil

Typd bag  
Popos bearing

*Perophora* (Harris) *melchioreri* (Har.) GHR p 11. Packs P&S.P. 3.351. Mor 15 Mor Syn 146.  
*Amphodia egenaria* Walk. L&R Tr. A&S. 2.88 Har Cor. 151. Har. 415.  
*Melchioreri* sack bearer Har.

Larva encloses itself in a leaf which it carries about with it Lar young pl 13  
when feeding & changes its habitation from time to time fig 19 Mo  
as it grows larger. rather common Mo on Oak Lar old pl 14  
Some large larvae found in the winter on the trees fig 18 Mo  
remained in their cases all winter but began to feed Insp pl 47  
again when the foliage was developed the next spring fig 2. Mo  
Insp. rare in Canada (Saunders) Insp pl 27  
fig 12 Mo.

Hab Can rare (Saunders) Mo common (H.) Mass. (Har.)

Pupa formed within its case which is closed up at each end  
with a circular silken lid

Food-plant Oak.

Note "Larvae cylindrical &c: the head has extensible jointed feelers which when extended  
are kept in constant motion while behind is a pair of antenna like organs  
broad & flattened at the end The tail is hooked and flattened forming a circular  
bony plate which like the operculum of a whelk closes up the aperture of the case."

"Larva feeds mostly by night. When it has done eating it moors its case Pack guide 292  
to a leaf by a few silken threads fastened to one & sometimes to both ends & before  
moving again it comes out & bites off these threads close to the case when about  
to transform into a pupa it fastens both ends of its cocoon to a branch Then stops  
up each of the holes in it with a little circular silken lid exactly fitting  
the orifice & made about the thickness of common brown paper" Har

0.75: L. cylindrical light ashy brown with brown line across  
back, head black, hard & rough. provided with 2  
spined feelers.  
L. both sides winged antenna curved up bent upwards  
stalk feathers more than half its length. Body wings  
resembling silk worm moth broken at real covering  
body like a sloping roof - reddish gray finely  
spiculated with black fine dots, a small black dot  
near mid fore wing. both wings crossed by a narrow  
blackish band

1.37.

2.00

*Sarcophora* Pack being caterpillar  
of small common form a case on a single  
leaf exactly as *Perophora melchioreri*  
the caterpillar in Bates figure resembles one  
Hypod. *ophryx ophiorhoeiformis* see Bates  
had on *Amaranth.* 414  
fed on leaves of *Melastomaceae*



1. Cylindrical, empty, rarely black dotted with white  
 above. Having many lines on the sides, where are 2 rows  
 of yellow spots. On back 4 dull white stripes alternating  
 with yellow ones & segments. Black hump on 4 & midlength  
 11/25/29 new 1.25  
 2. Spiny brown with oval velvet black spot from  
 front to mid length, previously slightly sprinkled with  
 black. crossed by 4 pale lines, something like the  
 letter S. In white on the upper upper line tiny hair  
 & crossed lengthwise by many dk brown line. 1.57

'Xov's a fish  
p'oi a tail

*Ichthyura* (Hüb.) *albospigma* (Mor) GFR 11 Pack P&LP. 3. 352. Mor Syn 244

*Glostera albosigma* Fitch 2<sup>a</sup> Rep. 1856. p 274. & 5<sup>th</sup> Rep. 1859 p 64  
" 7<sup>o</sup> 2<sup>o</sup> 8<sup>o</sup> 2<sup>o</sup> Sep. 1855 vol. 15 p 506.

White S. Clostera (Fitch) " " " 1858 vol 18, p. 844.

White S. Clostera (Fitch)

albus white  
signa. greck letter S  
or half moon like mark

Larvae live together in a nest, made by drawing two or more leaves together, whence they emerge to feed on the foliage generally leaving the midrib of the leaf untouched they attain full size in July (NY).

Ins pl 52  
fig 2 Ind

Pup. formed in thin silken cocoons among leaves Verburb.

Ins appears about 25<sup>th</sup> July 94

Hab Mats (Pack) Md (T<sub>2</sub>)

Can rare (Saunders)

Food plant Poplar.

Can Nova Scotia (Bethune Can Ent-1.44)

inclusion  
Spent up confined

*Ichthyura inclusa* (Hüb) GHR 11. Pack PESP 3.35t.

*Clostera americana* Har. 433. Fish 5th Rep. 1859. p. 65. Fish Tr. MS Ag. Soc. 1858 vol 18 p. 844  
 " *inclusa* Mor 23 ( *Clostera* in Eng. Krauss in chocolate tip moth. Newman 220 )

? *Phalaena anastomosis* St & pl 72.

Mochoa stone moth Sd. Poplar spinner Har.

Larva found in swarms from July to Oct. living together when young in a single leaf lined with silk but when older the nest is composed of several leaves folded or curled together which are fastened to each other with silken threads from this retreat they issue forth to devour the foliage.

Lar. pl 6  
fig 13 Willow  
Oct. Mo.

Cocoon forms of thin irregular silky substance, among the leaves or rubbish in this they remain all winter in the pupa state Cocoon formed May 25. '9 Oct 25. (Geo)

Ins pe 57  
fig 3. Mac

It appears the following spring (Md) March 8th & Col. 25. (Geo)  
There are 2 broods in one season in the Southern States  
but only one brood in Mass. (Am. Bul. 1. 1921)

Man (Har.)

Have <sup>man (Har.)</sup> ~~man~~ + Geo. "ma." 12 4 1/2. Food plants. Mallow. Poplar

not common London, Can. (Saunders) Can. (Bethune Can. Ind 1. 44

(Expenditure) 1869,  
2. Sep. 7.

indented

*Ichthyura indentata* Pack BPH. 11, Pack P&S 19. 3, 252.

Hab N Hamp. Pack.

116

*Ichthyura muerva* Pack. GRR 11 Pack 165P. 3.352

Hab { Nova Scotia &  
Can (Bethune  
Can Ent-144p)

*Hub. Ind. (Pack)*      Pale band across the secondaries see I. van below.

organically

*Ichthyura ornata* G.R. G.R. Tr a E.S. 2. 191.

Hab Calif. (Guth)

want 

*Ichthyura vau* (Morris) GHR. 11 Pack PESP. 3. 353 Mor Syn. 244

*Clastera* vau. Fitch 5th rep. 1859. p 65. & Tr. N.Y. Ag. Soc. 1858 v. 6. p. 845.

*V. marked clostera* (Fitch) ? doubtless feeds on *Populus* & *Willows* (Fitch)

Note " seems to differ from *J. inversa* above mentioned in having no pale band across the secondaries & may yet prove identical (Parr)

Hub N.Y. (Fitch)

*J. similar to C. Americana but darker col. & smaller*  
*& the first band not dislocated*







1. 25. dull yellow cylindrical slightly soft moths with yellow stripes & black heads when young. Broken old, green with yellow neck & light yellow stripes.
- 200 J. Davis for buff yellow to ashen brown. For young.
240. crossed with 3 to 4 narrow brown or black st. bands.
- 4 note 3 specimens that they do not change color as caterpillars.

*muscaria*

Remedy examine closely whenever the end of a branch appears to be stripped of leaves & if any caterpillars are found cut off branch & destroy caterpillars which will be found clustered together. Bellum

*Natana munstra* Tring. Prae Est 1.13

L Black with long white hairs on Black Walnut & Hickory

L. with a number of whitish yellow hair placed symmetrically of body on Oak Thorn apple &c

both produce the same moth exactly yet walk says they must be a distinct species as they cannot be compelled to change their food is the mature Hickory caterpillars will not feed on Oak &c & vice versa

? deriv

*Natana (Walk) angustis* GRR. GRR 11 GRR PESP 6 p. 9 pl 2 fig 1  
angustis Salang  
Lar enters the ground end Aug & begins Sep. (Gr)

Hab Long Island B.I. Mod Va (GRR) Food plant Walnut.  
Can. (Bethune Can Ent 1. 44) Ins pt 73  
fig 2. from GRR fig

Centraclous  
drawn together  
or constricted

*Natana contracta* Walk. GRR 11 GRR PESP 6 p. 14 pl 2 figs 5, 6. Pack PESP 3, 355  
Mor 22. Mor Syn 247

Larvae taken on Oak in Florida Aug.

Food plant Oak alone Grr 1 PESP 6. 14

Lar. pt 10.  
fig 20. Ha. Aug Oak.

Hab N. N.J. B.I. Long Island (Grr) Ma Fla (G.) Ins pt 22.  
in London Can. (Saunders) Can June 22. (Bethune Can Ent 1. 44) fig 19. coll of Mr. Santorn. 7 49  
fig 8. Md.

most pure or unmixed

*Natana integerrima* GRR. Gr pr ESP 6. p. 12. pl 2 fig 4.

\* ? *Phalocna ministræ* S.W. pl 81

Lar enters ground Sep.

Ins from middle to end July.

Ins pt 86  
fig 2. GRR fig

Food Plant Apple &c.

Hab N. Long Island Rhode Island (GRR)

Note "commonest species & generally resembles *N. ministræ* from which it may be distinguished by the nonexcavate exterior margin of the anterior wings G. (GRR. PESP 6 p. 12)

\* note if *N. ministræ* of SVA is a synonym of *N. integerrima* its food consists of Apple, Oak, Staggerbush & Walnut. ?

a servant

*Natana ministræ* Walk. GRR 11. } Pack PESP 3. 355. Mor 22. Mor Syn 246. 83  
Bethune. Can. Ent. 1. 44. Small ground Can. Ontario 1870. 83

*Phalocna* " Drury

*Pygaera* " Harr. 531

\* (or) *Eumetopona* " || Fitch (error) 1<sup>st</sup> Rep. pl 4. fig 3. 1856. p. 235. (see Pack.)

beautiful  
winter form. Fitch

Yellow necked Apple tree morm. or Hand made moth Fitch & Fitch & M.S. Ag Soc 1855 vol 15 p. 267

Eggs laid in patches of about 100 together on underside of terminal leaves of a limb  
In July they start about Pupae  
5 or 6 weeks. Bethune,

Larvae cluster closely together & when alarmed hold up both ends of their bodies when feeding they entirely strip a particular branch of its foliage Aug & Sep (and) 6 to 8 weeks before they attain full size  
formed in the earth without cocoons about 3 to 4 inches below the surface Sep.  
Ins appears June.

Larvae have the habit of descending & congregating in masses on the branch of the tree. (Am Ent 2. 306)  
2 broods a year in Indiana

Hab Mass. Maine G.

Can (Saunders) Md (a G.)

Food plants Apple Oak Staggerbush. Walnut. ?

" Hickory, Black Thorn (Walk R Ent 2 p 7)

" Wild & Cult. Cherry (Saunders)

Apple cherry (Grote)

note. Excreta diff. from *N. ministræ* (Am Ent 2. 306)  
by looking the old leaf

\* *Natana ministræ* Fitch 1<sup>st</sup> Rep pl 4. fig 3 is not Drury's species from which it may be distinguished by its descriptive non excavate external margin of the primaries & it is not impossible that it is a hitherto unrecognized & separate species " Grr PESP 6. p. 13

note " *N. ministræ* the larvae feeding on the Oak apple cherry & other trees invariably have a large yellow band behind the head & always with longitudinal lines on the back whilst those on the Malabar and other entirely black or even longitudinally lineate with whitish without any yellow behind the head. this last variety occurs also on Oak but the imago bred from both are absolutely identical " Walk PESP 3. 353 & PESP 5. 794

*Nadata gibbosa* Smith. Described 23 Aug. Rep.  
 L. feeds on Maple by State Cabinet. Wash.  
 It forms beneath a leaf fastened by some threads  
 to the ground. It. "none."

*Nadata*. Larvae. from *Nadata*. (Riley auth.)

figs. 3, 4, 5, 6. were found webbed up in  
 end of withered leaves in the  
 day time. Pl. 13. 4000 at Mid Aug. common  
 fig 7 was webbed up between two leaves. v. 13/70 at " Sept.



larger

*Natana major* GVR GGR 11 GGR P&S p 12. pl 2 fig 39Ins pl 57  
fig 16 Md. 29

Hab Ma. (G)

perspicuous, clear

*Natana perspicua* GVR. GGR P&S p 189. Pl 3 fig 1.Ins. pl 81  
fig 1. GVR.

Hab Illi. (GVR)

*Natana larvae undetermined.*

Larva found on high Whortleberry Md &amp; S.C.

Lar. food unknown Md.

Lar pl 10  
fig 22{ young Lar pl 10  
fig 23.  
old Lar pl 10  
fig 11.? deriv  
gibbs a hunch  
on the back.*Nadata* (Walk) *gibbosa* Walk, GVR p 11 Pack P&S p 3-356*Phalaena* " " SVA. pl 82.*Pygaera* " " Mor 23 Mor Sepn. 248.

Orange Prominent Sw

Larva found (Md) on Oak. Sep &amp; Oct.

Pupa formed underground

I appears the following spring (Moh Geo)

Food plant Oak.

June 20. (Mass)

Hab Mass. W4 Maine (Pack) Can West. rare (Saunders) Md common LG

*Nadata Doubledayi* Pack GGR 11 Pack P&S p 3. 356.Haudliays *Nadata*

Hab N.B. Edwards. (Pack)

" palpi smaller &amp; tipped with black. lighter colored G. V.

btag wasw  
to pitch away?  
aurora myth name.*Hyperpax* Hüb *aurora* Hüb GVR 11 Pack P&S p 3. 356.*Phalaena* " " SVA. pl 86.*Dorycampa venusta* Walk GVR Tr. AES 2. 70 & 86*♀ Sangata rosea* Walk. " " " 70 & 81*Datana aurora* Mor. 22 Mor Sepn 247

Pink &amp; Yellow Prominent. SVA.

Lar pl 4  
fig 16 Oak Md SepIns pl 56  
fig 20 Mavpl 61  
fig 31 Md.

Lar found on Oak Sep (Md) also on Raspberries B.C. Sep. 2 broods in one season Md

Pupa formed in a thin can or cocoon of dirt.

Ins of the later brood of caterpillars appears the following spring

Food plant Oak. L.

Hab. Mass. (Pack) Fla. Md G. (LG) Geo (SVA) Raspberry, Walter L.





varies dark or  
arrow.  
three lines.

*Glyphisia* (Bdv) *trilineata* (Pack) <sup>2nd B<sup>11</sup></sup> Pack P. L. P. 3, 355 Mor 0  
? *Glyphisia* ? *septentrionalis* Walk

In no pl 82  
fig 81, coll of Mr Saunders Can

In no pl 93  
fig 91, coll of Mr Sauborn Boston  
Hal Mass. 224 Mid St (Packs) London Can rare (Saunders)

*Notodontia stragula* <sup>cf</sup> *CVII/2*

*Notodontia almi* *Notodontia* (not in *Notodontia* LK.)

*Gluplusia* Harr. Cor. 245, 302

Larva found on Oak Sept. 26.

L. pl. 13 } Oak M.  
15, 16, 22 } Aug. Sep.

L. pl. 19 } Oak Sep. M.  
1.4

Notodonta fore wing slightly denticulate at the inner margin with a small nod or crest  
indicated by denticulation larvae with caudal dorsal tubercles West 90

347

"Notodonta & its allies (Philedonta Hüb.) are mostly noted in the larva  
state with large humps on the back & the hind legs greatly prolonged  
as in cerura the "fork tail" (Pack guide 292) & the moths are distinguished  
by the fore wings being toothed or having elevated portions along the inner margin" West 2, 385  
Notodonta (Ochsen) basitricornis (Walk) GFR II Grote P&S P. 3 p. 93. fig 1/4 1/4 3/4 5/4  
Notodonta stragula w ± Walk. GFR 1852, 85 Pack P&S P. 3 p. 366. Mor Syn 239.

very back. dors.  
on back tooth

♀ Casts skin  
Stomach upon 78.

Hab

Notodonta prominent moths England Newman 226

Ins pt 79  
fig 13. fm GFR fig

Stragula an outdoor  
garment or ornament

Notodonta stragula Grote GFR II Grote P&S P. 3 p. 93. fig 2. I vol 3 p p 322 & 537.  
Pack P&S P. 3 p. 357.

Ins pt 79  
fig 12 fm GFR fig

Hab NY (G. P&S P. 3, 388) Mats. (Pack) London Can. rare (Saunders)  
in a note GFR list P 12 it is stated that "the specimen determined as N stragula  
belongs to N basitricornis"

Lophodonta ? sp. undetermined.

Ins. sent from Missouri

Ins pt 58  
fig 20 Miss.

Hab Mo.

Lophodonta Angulosa

Ins. from Mr Allen Crocker Kansas.

Ins pt 58  
fig 22. Kans

Hab Kans.

Notodonta ?

Larva figured by Mr Lintner MS. & kindly lent for  
the purpose of showing in this work it fed upon  
willow

Lar pt 92  
fig 13. NY Willow

Hab NY.

Food plant Willow (Lintner)

Lophodonta (Pack.) Angulosa. (Pack)

♂ Phalaena angulosa S&A. (figure inferior) pt 83

Notodonta " Mor 22. Mor Syn 239.

Ligzag Prominent S&A.

Lar pt 9  
fig 8 fm S&A. Ins pt 57  
fig 6. Md.

Ins pt 58. Kansas. Allen Crocker Esq.

Lar fed on Oak Went into ground 30th May a second brood 16 Oct (Geo)

Ins appeared 25th Apr & the second brood 15th June (Geo) June (Mass)

Hab Mass. (Pack) Geo. (S&A) Ma (H)

Food plant. Oak (Geo)

Rd. (Crocker)

Lophodonta georgica GFR. GFR II Pack 6.

♂ Phalaena angulosa ♂ error S&A pt 83 (fig 342)

Notodonta georgica H&A

Georgian Lophodonta

Notodonta a crest  
of dors. a tooth  
angulosus full of  
angles or corners.





*Lophocenta ferruginea* Pack GYR II. Pack PESP 3. 357  
 ferrugineous or bronzed *Lophocenta*

Hab Mass. (Pack)

full of clefts

*Theosia* Hüb *rimosa* Pack GYR II Pack PESP 2. 358

Hab Whase Island. (Pack)

divides in two parts

*Theosia* *dividuita* H Sch. GYR II  
 an rite Amer. var?

two toothed.

*Merico* (Walk) *bidentata* (Walk) GYR II Pack PESP 3. 358. Mor 23.

Hab N.Y. (Grote) Pack Mass (Saunders)

Ins pl 65  
 fig 26. coll of Mr Sauborn  
 Mass.

(?) Elyw to eat.  
 white pointed.

*Edema* (Walk) *albipennis* (Walk) <sup>GYR II</sup> Mon Syn 242 Pack PESP 3. 358. } Am Ent  
*Phalaena albipennis*. SFA. Pl 80. } 1 p. 39  
 & Pack guide 298.

*Pygaera* " " Mor 23.

Larve 6 f  
 fig 10. Oak Oct 196.

White tip Moth (SFA.)

Ins. pl 56 & pl 57  
 fig 16 Ma. fig 10 Ma.

Larvae feed together especially when young & when about to  
 change into pupae spin up in a third white web between the  
 leaves in Oct & Nov. (Geo) the larva (spins) fed on oak (296) in Oct.  
 pupa. last Sep. Ins appeared Feb & May. (Geo) Miss Apt. (Chicago) Food p. 121. Oak.

Hab Mass. (Pack) Md (S.C.) Can. (Saunders)

prolonged or dilated

*Edema* *producta*. Walk. Pack PESP 3. 359. Mon Syn. 241. GYR list O.

Hab Fla. Walker (Pack)

2 sps. a stripe  
 on vs. 4th

*Stenodonta*. (GYR) *lineolata* GYR II

*Cecrita* ? *lineolata* (Pack) PESP 3. 359

*Heterocampa turbida* Walk. GYR 1852. 85.

*Edema* ? *associata* Walk. GYR 1852. 86

pupa July 25. Imago Aug 15. (Mass)

Hab Mass. (Pack)

weevil like

*Stenodonta* GYR. must. Ana (Pack) GYR II  
*Cecrita* ? " " Pack. PESP 3. 359.

Hab Mass (Pack)

See *Heterocampa guttivitta* 333

*Cecrita* *guttivitta* (Walk) Pack PESP 3. 359. GYR O

Hab Nova Scotia (Pack)

*Cecrita* *lineolata* Pack " & *Heterocampa turbida* Walk GYR 1852. 86. see above  
*Stenodonta*

(84)



125. 8 cylindrical prickles, stacked with flowing yellow, on each side, moderate slope. head bright red, right hump on 5th ring. 2 rows of black prickles along the back. 4 black prickles on side.  
 3 light brown. some white dots branching on wing with dark brown long mark on inner edge of upper wing. dark black on inner edge of under wing.

? deni

*Udemasia* (Pack) *concernia* (Pack) GHR 11 Pack P&S P. 3.361 Am Ent 2.27

*Phalaena* ——— " SVA pl 85

*Pyraea* ——— " Mor 23.

*Edoma* ——— " Mor Syn 242.

*Nelodonta* ——— " Fitch 3a 1866, 342, 46 or 426 Am Ent 2.27 fig.

Larva Red Hump prominent Inds. Painted Prominent Moth SVA.

Eggs deposited in a cluster on the underside of a leaf generally near the end of a branch (H).

Lar feed in a cluster & devour all the leaves from a particular branch (H) taken Dec. in Sep on Raspberry & Rose

Pupae formed in cocoons on or just under the ground. Lar pl 6

Ins appears last of June (H). 2 broods in one season. In pl 6

in Dec. June & spring. In pl 6

in Dec. June & spring. In pl 6

in Dec. June & spring. In pl 6

in Dec. June & spring. In pl 6

in Dec. June & spring. In pl 6

in Dec. June & spring. In pl 6

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in Dec. June & spring. In pl 6

in Dec. June & spring. In pl 6

in Dec. June & spring. In pl 6



fig<sup>1</sup> Psychorhiza spinosa





Notes from  
Scudder's Systematic  
Revision of  
American Butterflies  
Alphabetical List of Species



Erigeron ~~...~~ 30

Aster ~~...~~ 30

Helianthus ~~...~~ 30

Alopecurus ~~...~~ 30

Americanus ~~...~~ 30

Amygdalus ~~...~~ 30

Antirrhinum ~~...~~ 30

Aquilegia ~~...~~ 30

Artemisia ~~...~~ 30

Ostrya ~~...~~ 30

Asplenium ~~...~~ 30

Asplenium ~~...~~ 30

Atropa ~~...~~ 30

Atropa ~~...~~ 30

Aurea ~~...~~ 30

Aurea ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

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Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

Baccharis ~~...~~ 30

275

2750

of vegetable form

For future friends.

*Sp. barbores. clunq.*

Thalpus.

Dr. Kalar, Coarctatus, pheros

Dr. Kaloupek is not to work.

Sp. Hamptons. Cur wed. 25 neuron

Principles of the ...

17. 10. 1914. 11. 10. 1914. 12. 10. 1914.

Tridentatus a thorns less n. b. n.

Gr. Heras a horn & hogon beard. 13

Dr. Charles' dear friend & wife friends

... { <sup>4</sup> Drichim - nomos, moving the hands.

*Chloros arizonae* Osb. 1914

*Elaphoglossum* ... Sp. disc. ap. ant. 8 sp. disc eye:

④ *Ch. leucostictus* (Linn.)

Q. E. E. has an old hat of mine.

2. *Emilia* - 2 sent.

*Chrysothrix* . . . . . *Ephedra*, wet

$\} Enara$  is the first curve (of 13)  $m$

Crystals . . . . . crystalline stone.

*Diastrophilus*... Engaster the belly Sybilis. France

*E. d. d.*  
In. Quind, a Crane & much  
of the same size...

to the house when we were with the Pa

U. S. S. S. R. 24. 1944

... in gum of a rubber. com

concordia.

Delema... Dr. Sosa mendelz muller.



Campanula. Ensis. Hub. Sc 35

C 2

Gataea } Fennecia Hub. Sc 3

lylao Argus. Tab. Sc 24

disyll. Bar. Can. Sc 8

dryas. Polygona. Hub. Sc 10

10

Ervanensis. Theob. Tab. Sc 29

Eruar. Lysaea. Tab. Sc 30

E

Eubula. Cal. Hub. Sc 38

Eurydia. Leran. Hub. Sc 3

Eurydia. Argus. Scop. Sc 6

Eurydia. Cal. Tab. Sc 37

Eurytus } Eurytus } Merg. Hub. Sc 7

F

faunus. Polygona. Hub. Sc 4

genetia. Eubula. Hub. Sc 4

Olavus. Ensis. Hub. Sc 44

G

gracia. Polygona. Hub. Sc 10

Hannus. } Linn. Sc 26

Her. } Hub. Sc 32

H

Her. } Hub. Sc 9

Her. } Hub. Sc 30

Her. } Hub. Sc 30

Her. } Hub. Sc 30

Her. } Hub. Sc 32

Her. } Hub. Sc 32

Hyllus. } Hub. Sc 36

Hyllus. } Hub. Sc 36

Hyllus. } Hub. Sc 36

interrogationis. Polygona. Hub. Sc 9

I

I. } Hub. Sc 36

I. } Hub. Sc 32

I. } Hub. Sc 32

I. } Hub. Sc 36

J

I. } Hub. Sc 36



Kiamochi

Kiamochi *Alia* Sc 39

*Laetia* *Enora* Sc 40

*Laetia* *Andromeda* Sc 41

*Laetia* *Thecla* Sc 42

*Laetia* *Eurema* *Hüb.* Sc 43  
*Eurema*

*Laetia* *Chloris* Sc 44

*Laetia* *Canis* *Dah.* Sc 45

*Laetia* *Canis* *Schub.* Sc 46

*Glycy* *Doxocopa* *Hüb.* Sc 47

*Glycy* *Doxocopa* Sc 48

*Monarchia* *Amarantus* *Lal.* Sc 49

*Monarchia* *Amarantus* *Hüb.* Sc 50

*Monarchia* *Euphorbia* *Hüb.* Sc 51

*Monarchia* *Persea* Sc 52

*Monarchia* *Persea* *Lal.* Sc 53

*Monarchia* *Persea* Sc 54

*Monarchia* *Calceolaria* Sc 55

*Milbertia* *Aglaia* Sc 56

*Milbertia* *Aglaia* *Hüb.* Sc 57

*Milbertia* *Aglaia* Sc 58

*Milbertia* *Ascia* *Sc.* Sc 59

*Milbertia* *Ascia* *Hüb.* Sc 60

*Milbertia* *Ascia* Sc 61

*Milbertia* *Ascia* Sc 62

*Milbertia* *Ascia* *Lal.* Sc 63

*Milbertia* *Ascia* Sc 64

*Milbertia* *Ascia* *Hüb.* Sc 65

*Milbertia* *Ascia* *Sc.* Sc 66

*Milbertia* *Ascia* *Sc.* Sc 67

*Milbertia* *Ascia* Sc 68

K

L

M

N

Alphabetical list of some of the principal Genera &c. of Diptera  
 with derivation of names

<i>Acalyptera</i> . . . . . { } a without halcyon, a (page 15) covering	<i>Chrysops</i> . . . . . Gr. χρυσος golden, ops. eye. . . . . 15
<i>Acanthomera</i> . . . . . { } Gr. ακανθα, a spine & meroes. 2. the thigh.	<i>Chrysoterum</i> . . . . . Gr. χρυσος tenax, golden; bow.
<i>Acinia</i> . . . . . Gr. ακινος, a grape.	<i>Chrysotus</i> . . . . . Gr. χρυσος, gilt.
<i>Aerocera</i> . . . . . Gr. αερος high, & keras horn.	<i>Chironex</i> . . . . . Gr. χιρις to incline, keras the horn.
<i>Agromyza</i> . . . . . { } Gr. αγρος a field, myza a fly.	<i>Catopa</i> . . . . . Gr. κατω, hollow, ops, face.
<i>Anopora</i> . . . . . Gr. ανορος, mutilated.	<i>Cenomyia</i> . . . . . Gr. κενος common, myia fly.
<i>Anopheles</i> . . . . . Gr. ανοφελος, troublesome.	<i>Cenosis</i> . . . . . "
<i>Anthomyia</i> . . . . . Gr. ανθος a flower, & myia a fly.	<i>Comptos</i> . . . . . Gr. κομπος, a kind of gnat. . . . . 16
<i>Antherax</i> . . . . . Gr. ανθηραx, a flower coat.	<i>Condynera</i> . . . . . Gr. κονδυλη a club, & ανηρα tail.
<i>Aphoniptera</i> . . . . . Gr. αφωνος hidden, pteron wing.	<i>Cricacea</i> . . . . . Lat. Crurum latior
<i>Asilus</i> . . . . . L. asilus, a house fly. . . . . 17	<i>Coethura</i> . . . . . Gr. Κοιθηρα a broom or bunch of hair, from τειρι tipped antennae
<i>Aspites</i> . . . . . Gr. ασπιτης, armed with a shield.	<i>Cula</i> . . . . . Lat. culx a gnat. . . . . 17
<i>Astria</i> . . . . . Gr. αστρας belonging to a star.	<i>Cuticera</i> . . . . . Lat. cuti skin & τερερα a horn
<i>Atomesia</i> . . . . . Gr. α-τομος, uncut, or without joint.	<i>Cynomyia</i> . . . . . Gr. κυων, a dog & myia a fly.
<i>Athericera</i> . . . . . { } a without horn & keras horn.	<i>Cyrtus</i> . . . . . Gr. κυρτος, a curve.
<i>Basocha</i> . . . . . myth name.	<i>Elaeus</i> . . . . . Gr. ελατος, biting or gnawing.
<i>Batrachomyia</i> . . . . . Gr. batrachos a frog, & myia a fly.	<i>Elyptogon</i> . . . . . Gr. ελατος, biting or gnawing.
	<i>Dermatobia</i> . . . . . Gr. derma skin & βοιο to live.
	<i>Illexia</i> . . . . . Gr. Ιλlexia, the right hand. . . . . 18
	<i>Diastatus</i> . . . . . Gr. διαστατος, standing far apart. . . . . 19

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*Enodia* *glauca* Hub Sc 32

*Antennaria* *fulva* Fab Sc 39  
*arguta* *maritima* Hub Sc 42

*Alchemilla* *campanulata* Fab Sc 35

*Polygonum* *celticum* Fab Sc 39  
*humboldtianum* *glauco-guttatum* Sc Sc 33

*Pennisetum* *spensii* Sat Sc 30

*Phacelia* *endoglypha* Sc Sc 24

*Phulencia* *laetevirens* *humboldtii* Sc 43  
*arborescens* *Dru*

*Phytolacca* *capitata* Fab Sc 39

*Physalis* *peruviana* Sc Sc 36

*Plexipogon* *denatus* Sat Sc 40

*Poa* *humboldtii* Sc Sc 36

*Portulaca* *anacardiifolia* Sc Sc 37

*Portulacacis* *enodia* Hub Sc 5

*Portulaca* *canadensis* Sc Sc 32

*Pragnia* *latifolia* Hub Sc 10

*Proserpinaca* *acris* *boissieri* Hub Sc 47

*Proserpinaca* *acris* Sat Sc 47

*Protuberantia* *spensii* Hub Sc 42

*Psidium* *indianum* *lyanensis* *Salisb* Sc 34

*Psidium* *indianum* Sc Sc 30

*Rapum* *gibbosa* *Salisb* Sat Sc 41

*Ruellia* *humboldtii* Sat Sc 33

*Ruellia* *humboldtii* *Euphorbia* Hub

*Sarcocolla* *humboldtii* Sc Sc 34

*Sarcocolla* *humboldtii* Sc Sc 34

*Scutellaria* *lycaide* *humboldtii* Sc 33

*Semideca* *encis* Hub Sc 4

*Silene* *dentata* *californica* Sc 30

*Sonchus* *oleraceus* *humboldtii* Sc Sc 31

*Synanthus* *humboldtii* Sc Sc 52



Alphabetical list of some of the principal Genera &c. of Diptera  
with derivation of names

<i>Acalypterus</i> ... { } <i>Gr. a without. kalyptra, a</i> (poor) <i>covering</i>	<i>Chrysops</i> ... <i>Gr. chrysos golden, ops. eye.</i> 15
<i>Acanthomeria</i> ... { } <i>Gr. akantha. a spine &amp; meros. 2</i> <i>the thigh.</i>	<i>Chrysotomum</i> ... <i>Gr. chrysos Texas, golden, tomos.</i> 15
<i>Acinia</i> ..... <i>Gr. aknos. a grape.</i>	<i>Chrysotus</i> ... <i>Gr. chrysotus, gilt.</i>
<i>Aerocera</i> ..... <i>Gr. akros high, &amp; keras horn.</i>	<i>Clinocera</i> ... <i>Gr. klinos to incline, keras the horn.</i>
<i>Agronomyza</i> ... { } <i>Gr. agros a field, musca or myza</i> <i>a fly.</i>	<i>Culicopa</i> ... <i>Gr. kulis, hollow. ops. face.</i>
<i>Anapera</i> ..... <i>Gr. anapera, mutilated..</i>	<i>Caenomyia</i> ... <i>Gr. kunois common, musca fly.</i>
<i>Anopheles</i> ..... <i>Gr. anopheles, troublesome.</i>	<i>Cenosis</i> ..... "
<i>Anthromyia</i> ... <i>Gr. anthos. a flower &amp; musca a fly.</i> 3.	<i>Canops</i> ... <i>Gr. Kanops. a kind of gnat.</i> 16
<i>Anthrax</i> ..... <i>Gr. Anthrax. a charcoal.</i>	<i>Ceratomyza</i> ... <i>Gr. Herodote a cat, &amp; zoma tail.</i>
<i>Aphanipterus</i> ... <i>Gr. aphanes hidden, pteron wing.</i>	<i>Ceracra</i> ... <i>Lat. Cerium Calcher</i>
<i>Asilus</i> ..... <i>Gr. asilus a house fly.</i> 1.	<i>Cerithra</i> ... <i>Gr. Herethra a brown or luncer</i>
<i>Aspilota</i> ..... <i>Gr. aspilota armed with a shield.</i>	<div> <i>Culex</i>..... <i>Lat. culex a gnat.</i> 17.  <i>of hair, from their tufted antennae</i> </div>
<i>Astia</i> ..... <i>Gr. astia belonging to a city.</i>	<i>Cuticra</i> ... <i>Lat. cutis skin &amp; Sordra a horror</i>
<i>Atmosia</i> ..... <i>Gr. a-tomos. uncut or without joint.</i>	<i>Cynomyia</i> ... <i>Gr. Kion. a dog, &amp; musca a fly.</i>
<i>Catherina</i> ... { } <i>Gr. a without. ther a wild beast.</i> <i>&amp; Keras horn.</i>	<i>Cyrtus</i> ... <i>Gr. Kyrtes. a curve.</i>
<i>Bascha</i> ..... <i>myth name.</i>	<i>Diacus</i> ... <i>Gr. diakos. baring or gnawing.</i>
<i>Batrachomyia</i> <i>Gr. batrachos. a frog &amp; musca a fly.</i>	<i>Diaglyptus</i> ... <i>Gr. diakos. thick, pegera beard.</i>
<i>Boris</i> ..... <i>Gr. Boris a common.</i>	<i>Dermatobia</i> ... <i>Gr. derma skin &amp; bio to live.</i>
	<i>Dexia</i> ..... <i>Gr. Dexia. the right hand.</i> 18
	<i>Dixitella</i> ... <i>Gr. Dixitatos. standing perçant</i>
	<div> <i>in allusion to the two cross veins</i> </div>

1. *Staphylinus* 2. *Formica* 3. *Lasius*

Tha. as Ph. *cardus* Hal. Sc. 25

thoe Ch. in 1846

Das St. Georg. Hilt. Seite 32

*Silene*

Mercurial Scale 40

Little Green St. 2nd St. 100

T. minor Eng. & Lindb. Hal.

Uncon. *Arctostaphylos* L. S.

Articac Cy. D. 11

Ver. 10. N. S. 1862. 1862. S = 42

Great Smoky Mountains So. So. So.

Rec'd by Pharm. Bureau, S. 4086

*Cyaniris Dalm. S. 34*

Archibuteo Calurus 5. 5. 36

Mass. *Thymus* 1400 Sc 524

Laurel <sup>by</sup> at 100 ft. Se. Sp. 56

Unccccc May 2 1871

{*Stachena* *deglabrata*, which lives in the body of the larva. (125)

*Myocampa* (Horn) *imperiali*, see *Ecce*.

*Donner*. The males of the honey bee, are destroyed by the larva of a *Corymb*. The

{ female *rupestris* lays its egg on a stem, the larva or grub of which being  
hatched enters the body of its victim. It eventually kills it by eating the viscera (60)

*Ecce* (*Stachena*) *imperiali* (*Stachena*) The caterpillar is destroyed by the larva of *Stachena*  
*rupestris*. (128)

*Corymb*, *Stachena*. (*Stachena*)

*Stachena* *rupestris*. (*Stachena*) "The year tree usually not true" is said to be destroyed by the  
larva of *Stachena* *rupestris*. (128)

*Ecce* (*Stachena*) *rupestris* (*Stachena*) The caterpillar is destroyed by the larva of *Stachena*  
(*Stachena*) *rupestris*. (128)

*Stachena* (*Stachena*) *rupestris*. (*Stachena*) "The year tree" The nest is inhabited by the larva of

{ a parasite fly, *Stachena*, which feeds either upon the caterpillar larva or  
in the clay vase like nest, or upon the young larvae of the wasp itself. (128)

*Stachena* (*Stachena*) *rupestris*. The larva makes a globe on willows which is inhabited

{ by *Stachena* *rupestris* as a guest of the nest. (128)

*Stachena* (*Stachena*) *rupestris*. The larva makes a globe on willows which is inhabited

{ by *Stachena* *rupestris* as a guest of the nest. (128)

{ *Stachena* *rupestris* as a parasite destroying *Stachena* *rupestris*. (60)

{ *Stachena* *rupestris* as a parasite destroying *Stachena* *rupestris*. (60)

{ *Stachena* *rupestris* as a parasite destroying *Stachena* *rupestris*. (60)

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{ *Stachena* *rupestris* as a parasite destroying *Stachena* *rupestris*. (60)

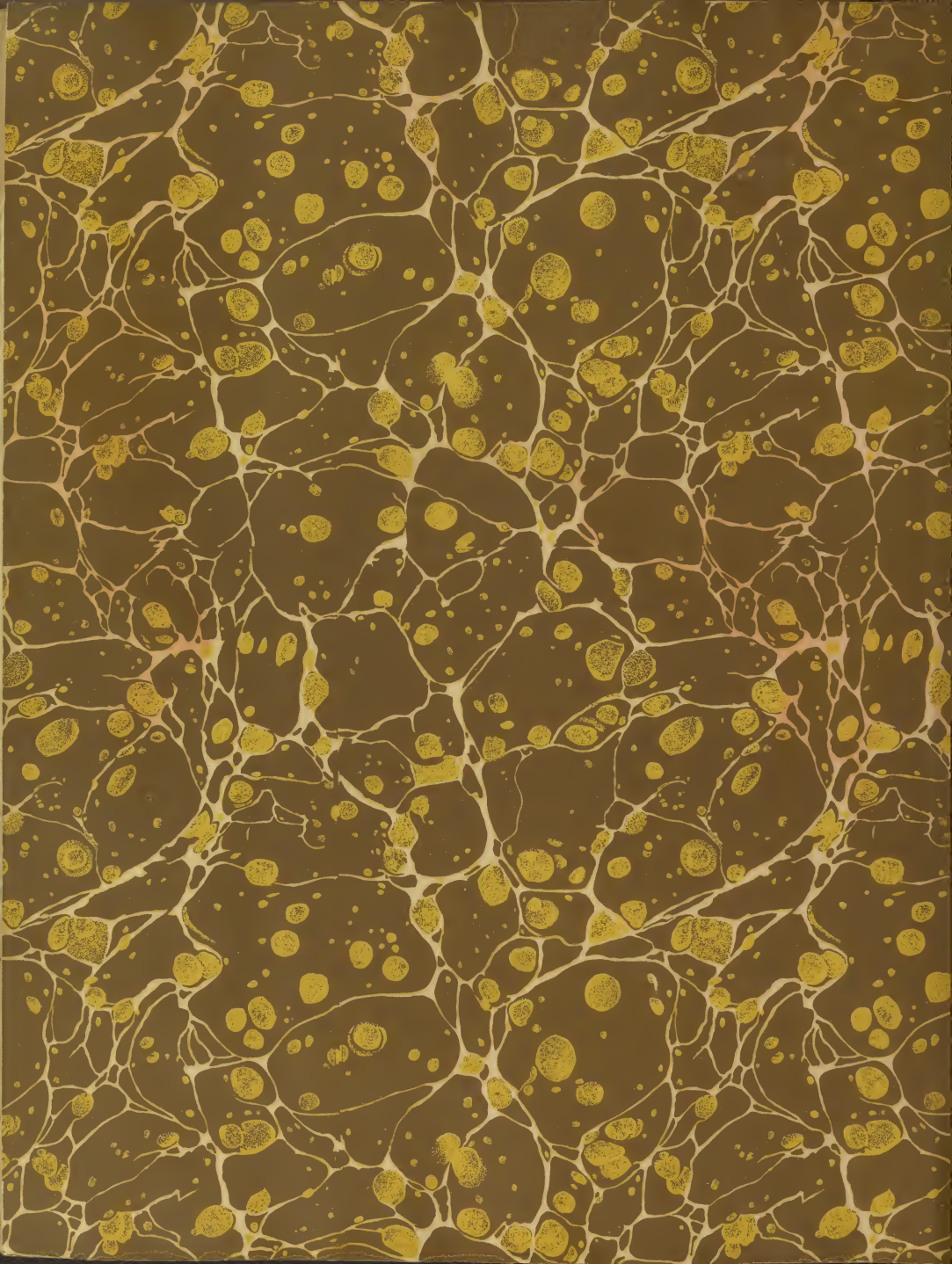
{ *Stachena* *rupestris* as a parasite destroying *Stachena* *rupestris*. (60)


*Melospiza cinerea*. (Cin.) Striped summer lark. Its song is given by the female of *Melospiza cinerea* (Cin.) diadema, which feed in the body of the female. (N.S.)  
*Agelaius phoeniceus*. (Ph.) The lanceolate winged bird of the Phoeniceae. (L.).  
*Agelaius phoeniceus*. (Ph.) The lanceolate winged bird of the Phoeniceae. (L.).











All leaves deacidified with  
methyl magnesium carbonate.  
January, 1980.

Carolyn Horton & Associates  
430 West 22nd Street  
New York, N.Y. 10011

